Requirements Engineering

Agenda

- **About Us**

- **About Visteon**

- **IREB**

- **IREB/IIBA Certificates Comparison**

- **RE Role in Visteon**

Dimitar Popov

Visteon Electronics

- **About Visteon**

  - 2001

  - 11,000 employees

  - 50 offices in 19 countries

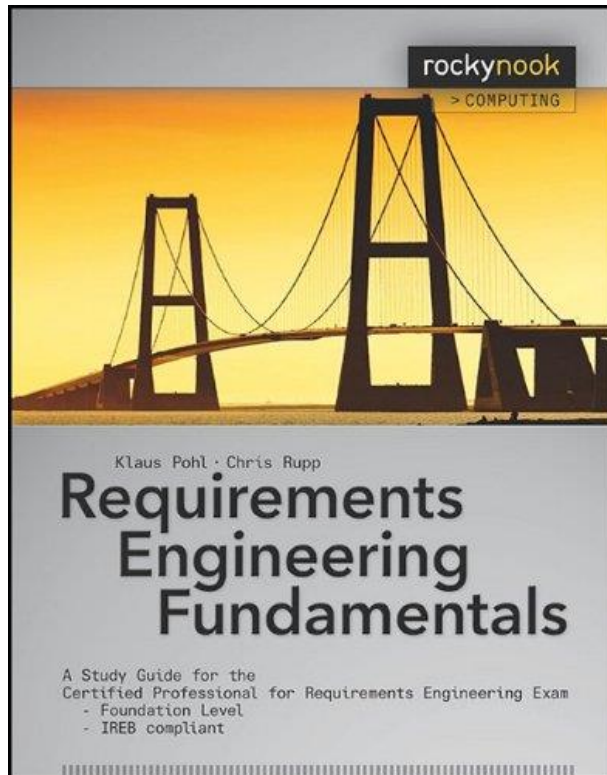 - Automotive SPICE® compliant

- **Customers**

- **Products**

■ **Overview**

■ **Members and Chapters**

■ **Mission of the Organization**

   ■ Provide a certification model with syllabi and exams to foster further education within requirements engineering

   ■ Facilitate communication efficiency by using the same "language"

   ■ Promote requirements specifications that are less defective

IREB FL Preparation Book Chapters

- Introduction
- System Scope Context
- Eliciting Requirements
- Documenting Requirements
- Documenting Requirements in Natural Language
- Model-based Requirements Documentation
- Requirements Validation and Negotiation
- Requirements Management
- Tool Support

IREB Certificates

Certified Professional for Requirements Engineering

- **Foundation Level**

  - Recognized by the British Computer Society as an equivalent to the BCS Certificate in Requirements Engineering and by IIBA as an as an equivalent to CCBA

- **Advanced Levels**

  - Requirements Elicitation and Consolidation

  - Requirements Modeling

  - Requirements Management

- **Expert Level** (planned for 2016)

Certificates Comparison

	CPRE Foundation	Advance Levels	CCBA	CBAP
Number of Certified Worldwide	22861	Confidential	790	5835
Experience Requirement	none	CPRE Foundation Level required	3,750 hrs; minimum 900 hrs in 2 of 6 knowledge areas or 500 hrs in 4 of the 6 knowledge areas	7500hrs; minimum 900 hrs in 4 of 6 knowledge areas
Professional Development Requirement	none	none	Minimum 21 hrs over last 4 years	Minimum 21 hrs over last 4 years
Reference Requirement	none	none	yes	yes
Examination Fee	150-220 EU	650 EU	$450	$450
Application Fee	none	none	$125	$125
Renewal Fee	N/A	N/A	No	No
Recertification Requirement	No	No	Yes	Yes
Certification Exam	45 questions, 75 minutes Knowledge and application	Multiple Choice exam 75minutes, homework approx. 2 days effort within 1 year after MC test passed	150 questions, 3.5 hrs Knowledge focus	150 questions, 3.5 hrs Knowledge focus and application focus
Need to be a member of the organization	No	No	No	No
Preliminary Interviews	No	No	No	No
Confirmation of technical degree	No	No	No	No

IIBA Multi-Level Competency Certification

COMING SOON!

THE NEW GLOBAL GOLD STANDARD FOR CERTIFICATION.

COMING SOON
iiba.org/certification

■ **Level 1** – entry level BA Professionals

■ **Level 2** – requires 3,000-4,500 hours of experience. **CCBA®**

■ **Level 3** – requires 7,500-10,500 hours of experience and is also exam based. **CBAP®**

■ **Level 4** - requires a minimum of 15,000 hours of experience. Will be assessment based.
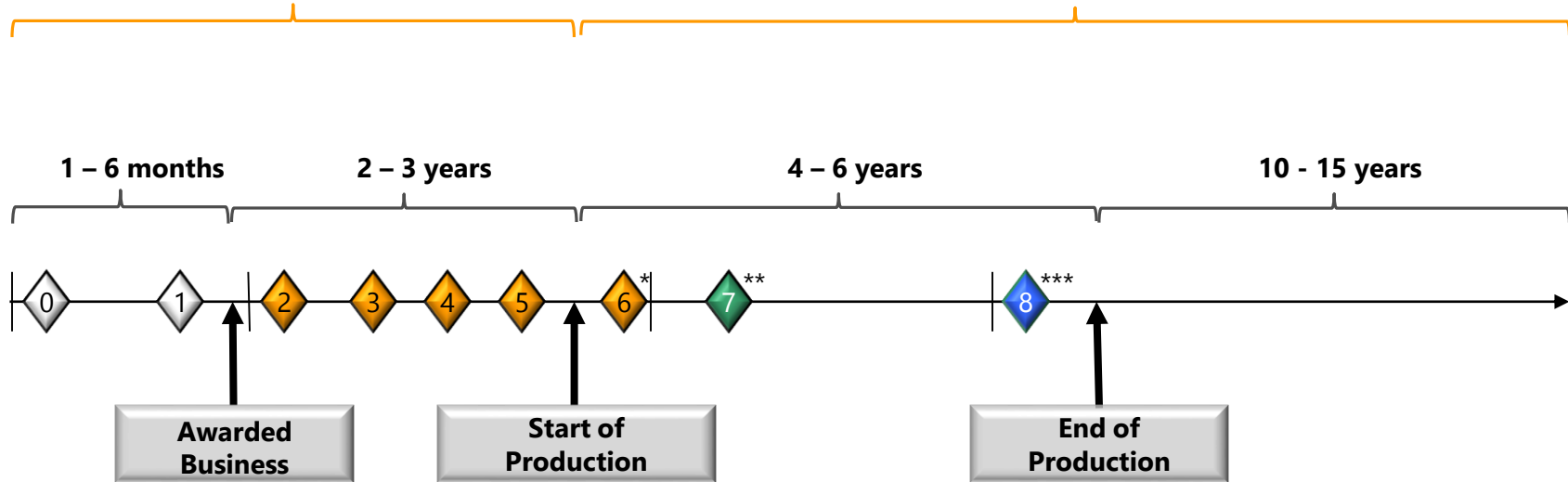
Visteon Product Lifecycle

Typical Timing

Development: 3 – 4 years | Total life of part: 14 – 20 years

Gates

1 – 6 months | 2 – 3 years | 4 – 6 years | 10 - 15 years

0 — 1 — 2 — 3 — 4 — 5 — 6* — 7** — 8***

Awarded Business

Start of Production

End of Production

Description

| Customer Quote | Development of Parts | Parts in Production | Parts in Service only |

*Gate 6: Starts typically 90 days post SOP
**Gate 7: Starts typically 18 months post SOP
***Gate 8: Starts typically 6 months prior to EOP

Cluster + Infotainment Project

108 Features

3 Lead System Engineers
(Scope & Planning)

261 Change Requests

22 System Engineers
(Feature details)

4 years (MY17)

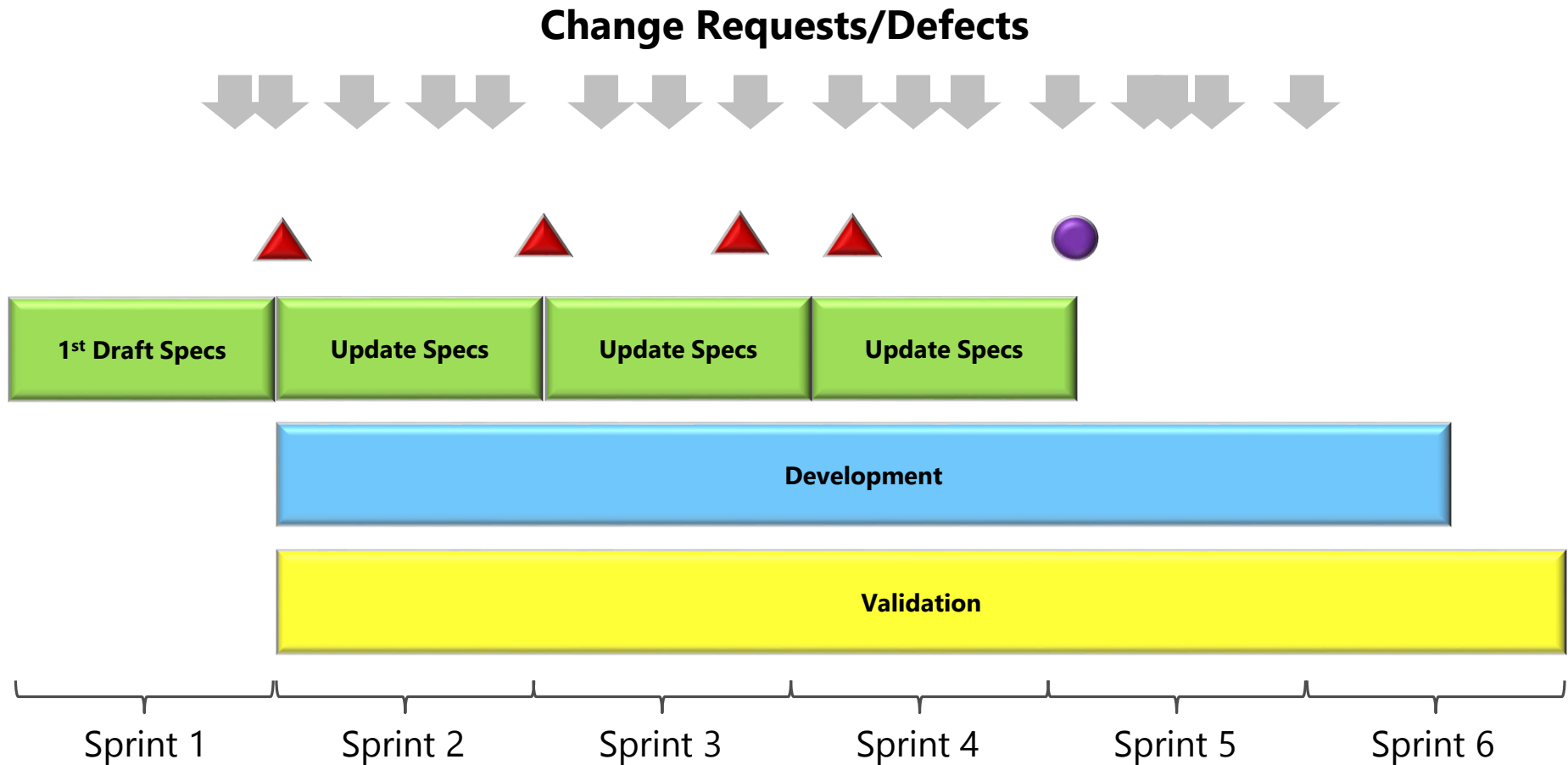Stakeholders on
3 continents

Specification consists
of 2 documents

DOORS, OPL,
Rational Team Concert

Cluster + Infotainment Project

Change Requests/Defects

1st Draft Specs	Update Specs	Update Specs	Update Specs

Development

Validation

| Sprint 1 | Sprint 2 | Sprint 3 | Sprint 4 | Sprint 5 | Sprint 6 |

Cluster + Infotainment Project

- **DOORS**

Template for Feature Specification Specs		_ｉ_ObjectType	_ｉ_SkillAllocation	_ｉ_PRJ_State	_ｉ_PRJ_Iteration	_ｉ_VerificationSkill	_ｉ_SafetyInteg
If "priority 1 mute" attribute is set and message type is acoustic only or asynchronous acoustic, the AH Service shall Mute all active Audio Sources. **Note**: Refer to SysRS_WIM-IC-Specification_Model for more details		Entry	SW	New	E004	System Validation	
If "priority 1 mute" attribute is set and message type is warning or operation rsponse with synchronous acoustics, the AH Service shall Mute all active Audio Sources. **Note**: Refer to SysRS_WIM-IC-Specification_Model for more details		Entry	SW	New	E004	System Validation	

- **Open Issues List**

ID	Open Date	Reviewer	Reviewed Baseline	Requirement ID	Description	Answer / Discussion	Priority (HIGH, MID, LOW)	State	Comment
FeatureName_1									

Partner Events History | **Open Issues, Discussions** | ⊕

Infotainment Project

47 Features

6 Lead System Engineers
(Scope & Planning)

123 Change Requests

6 System Engineers
(Feature details)

2 years (MY14)

Stakeholders on
3 continents

Specification consists
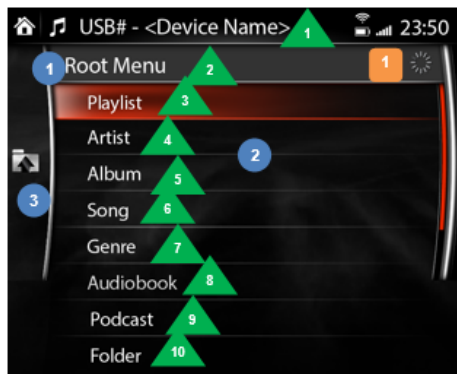of 3 documents

DOORS, JIRA,
Rational Team Concert

Infotainment Project

Change Requests/Defects

CCM	1st Draft Specs	Internal Review	Update Specs	External Review	Update Specs	Sign

Development

Validation

Infotainment Project

- **DOORS**

Requirement ID	ObjectType	Section 4 Module	_¡_Paragraph Style	Product	_¡_MY15CMU_State	_¡_MY15CMU_PFS	_¡_	ObjectText	Comment
SR_USBAUDIO-333	Heading / Info	**1.1.8.6 Common Requirements**		MY15 MY16	N/A	Y			
SR_USBAUDIO-872	Entry	If a umass device is connected, the CMU shall exclude a folder from cataloging if the folder and its subfolders contain no playable audio files.		MY14 MY15	Dropped	Y			
SR_USBAUDIO-910	Entry	Depending on the device type the CMU shall allow navigation by the following categories:		MY15 MY16	Modified	Y		TRANSLATE	SW00169019
SR_USBAUDIO-1329	Heading / Info			MY15 MY16	Modified	Y		TRANSLATE	SW00169019

Device type	Categories					
	Playlist	Artist	Album	Song	Genre	Po...
iPx	Yes	Yes	Yes	Yes	Yes	Y...
UMASS/MTP	Yes	Yes	Yes	Yes	Yes	

- **UI Spec**

USBAudio   Sub Screen: N/A   PFS Reference: SR_USBAUDIO-562   UI Flow: Top Level

Visual Reference Image

USB# - <Device Name>   23:50

1 Root Menu 2

- Playlist 3
- Artist 4
- Album 5
- Song 6
- Genre 7
- Audiobook 8
- Podcast 9
- Folder 10

UI Notes

01 Root Menu: The title of the USB device.

02 USB Features List: USB Audio has 8 features USB

During Background Cataloging, several of the USB Audio features may be greyed out until Cataloging completes. During Cataloging, an indeterminate meter will appear next to the Root Menu Title.

- Playlist
- Artist
- Albums
- Songs
- Genre
- Audiobook

Event Manager

			Screen Transition Events			
RefID	UID	Mode	Event Desc	Condition	Result	Destination Screen
T1	401	Touch	Touch left arrow			NowPlaying
T2	402	Multicontroller	Tilt left			NowPlaying
T3	403	Touch	Touch playlist in list			Playlists
T4	404	Multicontroller	Select playlist in list			Playlists
T5	405	Voice	Say "Playlist"	User intent is Browse; Device is ready	Show all playlists	Playlists
T6	406	Voice	Say "Playlist"	User intent is Play; Device is ready	Show all playlists	Playlists
T7	407	Touch	Touch artist in list			Artists
T8	408	Multicontroller	Select artist in list			Artists
T9	409	Voice	Say "Artist"	User intent is Browse; Device is ready	Show all artists	Artists
T10	410	Voice	Say "Artist"	User intent is Play; Device is ready	Show all artists	Artists
T11	411	Touch	Touch album in list			Albums
T12	412	Multicontroller	Select album in list			Albums
T13	413	Voice	Say "Album"	User intent is Browse; Device is ready	Show all albums	Albums
T14	414	Voice	Say "Album"	User intent is Play; Device is ready	Show all albums	Albums
T15	415	Touch	Touch song in list			Songs
T16	416	Multicontroller	Select song in list			Songs
T17	417	Voice	Say "Song"	User intent is Browse; Device is ready	Show all songs	Songs
T18	418	Voice	Say "Song"	User intent is Play; Device is ready	Show all songs	Songs

Thank you!