

Enterprise Risk Management

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IBM Human Ability and Accessibility Center



Feb 2013

Megatrends

“For the longest time, IT leaders and industry pundits have talked about empowering people with a more intuitive user interface and greater ease of use.

Now as consumer technology infiltrates the enterprise, we’re done with all the wishful thinking.

It’s a demand, not a request.”



February 2012



IBM workforce: 400,000+ employees

- More than 50% mobile
- 170 countries
- 2,000 locations
- 70+ acquisitions since 2002
- 50% with less than 5 years experience



The Mobile Worker

Working **when** and **where** I want...

- with information I need
- using any available connectivity type
- using any corporate-approved device
- with the support I need



Work is no longer a place!



Generational shifts unleash different work styles



Experienced Workers
(age 50+)

Organizations' wisdom
and Intellectual capital



Mid-Career Workers
(ages 35 - 50)

Essential professionals
and middle managers



New Generation Workers
(born after 1980)

Critical to long-term
viability and innovation



Email

Instant Messaging

Social



In today's social businesses, **excluding** any individual means **leaving ideas, insight and opportunities** on the table.

What's impacted?
Your ability to:

- Differentiate from competition
- Expand market reach
- Drive Innovation



Megatrends:



What's driving demand for people-centric innovation?

Known Trends

Human Rights
(Technology Access)

119 countries ratify UNCRPD

**Multigenerational
Needs &
Expectations**
(Aging, Youth)

600+ million worldwide
over age 60



Disruptive Trends

**Mobile, Smart
Technology
Adoption**

6 billion cell phones

**Social
Networking,
Social Business**

People-centric

**Growth Market
Challenges**

< 25% population of
India is illiterate



Infrastructure
Applications
Devices
Content





A holistic, integrated approach

- Policy and Standards
- Governance
- Capacity and Implementation
- Innovation

Solutions:



System-tied



Scalable

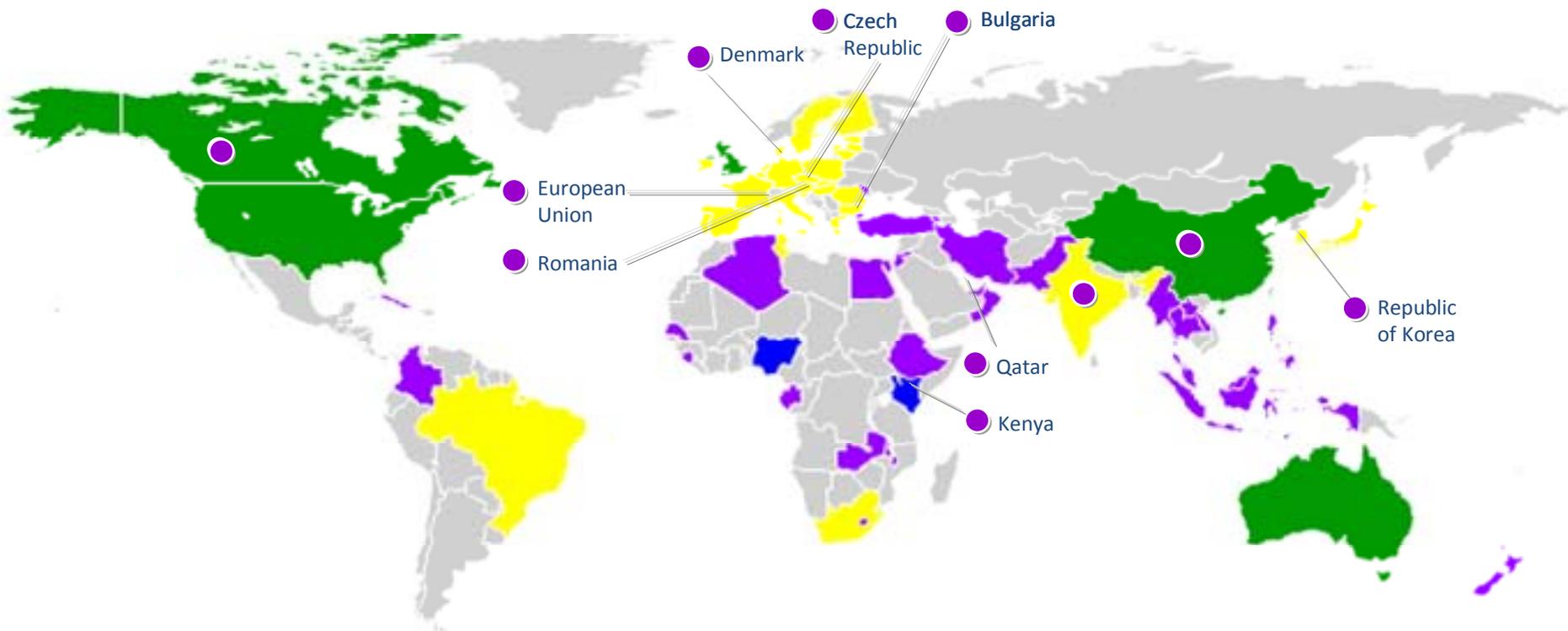


Sustainable



Self-service

Global Standards and Legislation Impact



-  Green: Legislation, Enforcement, Standards in Place
-  Yellow: Rapidly evolving legislation, enforcement, standards (may be voluntary)
-  Blue: Emerging legislation, enforcement, standards
-  Purple: Countries that have ratified the U.N. Convention on the Rights of Persons with Disabilities

Rapid Transformation of Standards



Next

- 2000**
- § **W3C:** WCAG 1.0
 - § **US:** Section 508
 - § **IBM:** CI 162
 - § **WCAG 1.0**
 - § Japan
 - § Germany
 - § Italy
 - § France
 - § UK
 - § Netherlands
 - § Korea
 - § US states
 - § ...



- 2005**
- § **OASIS:** ODF Accessibility
 - § **IBM:** IAccessible2
 - § **UN:** Convention on Rights of People with Disabilities
 - § **W3C:** WCAG 2.0
 - § **ISO:** Software
 - § **China:** WCAG 2.0 based Web standard



- 2011**
- § **US:** CAAA, ADA
 - § **ITU Accessibility Initiatives**
 - § **EU:** Telecom directive
 - § **Japan & Canada:** CAAA-like regs in process
 - § **Canada:** WCAG 2.0 for federal gov't website
 - § **Ontario:** AODA
 - § **ISO:** JTC1: AT-IT Interop, IAccessible2
 - § **Korea:** Public and private sector websites



2012

- § **W3C:** WAI-ARIA, HTML5, SVG, IndieUI, WCAG2ICT
- § **ISO:** Approved WCAG 2.0 as ISO/IEC 40500:2012
- § **IMS GLC:** Access for All
- § **US:** Section 508 procurement reg refresh
- § **US:** DoL proposes 7% PwD employment target for fed. contractors
- § **EU:** Mandate 376 standards, certification scheme, potential procurement regulation
- § **EU:** Web Accessibility Directive
- § **China:** New Web standard, government mandate on accessibility
- § **Canada:** More provinces follow Ontario lead

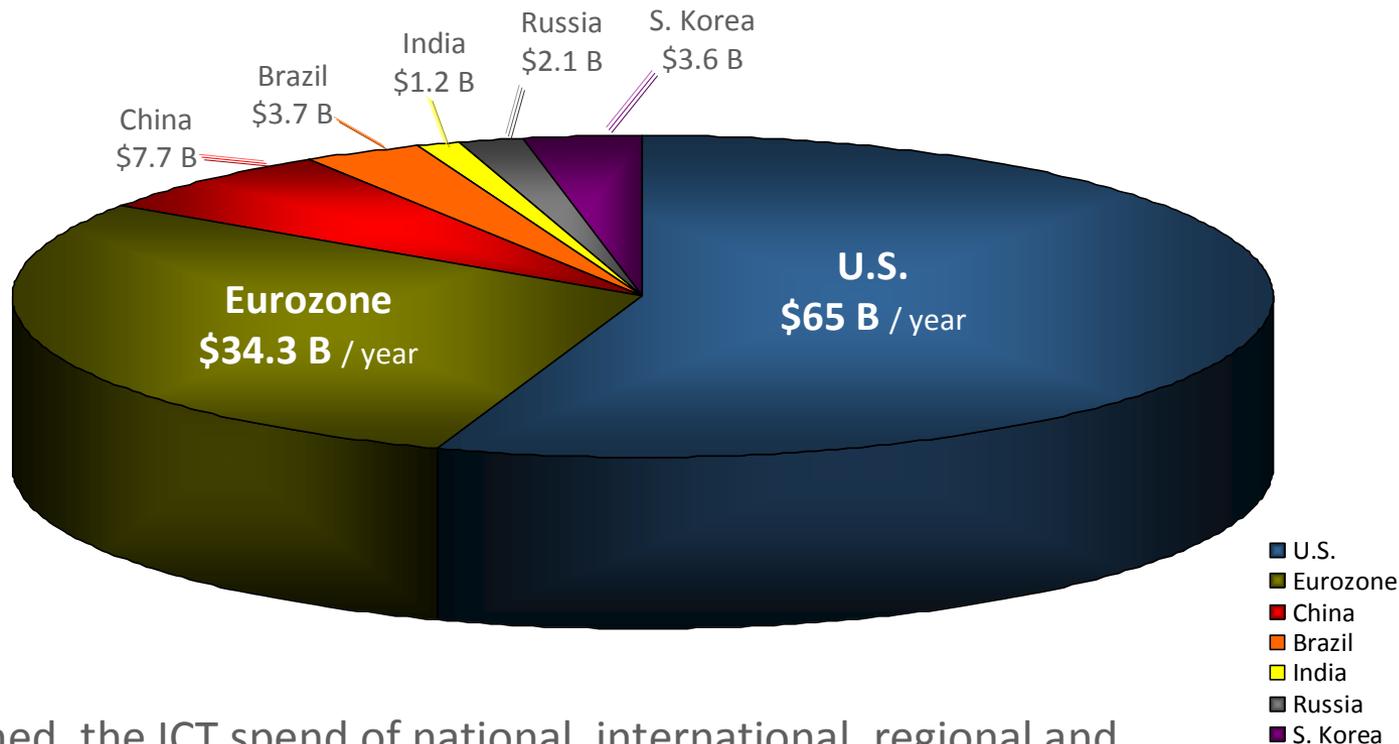
2014

- § **UN:** 124 ratifying countries
- § **EU:** potential Accessibility Act, accessibility required to sell in EU market
- § **US:** ADA Web standard





Global Federal Government Market for ICT: **\$102 Billion**



“Combined, the ICT spend of national, international, regional and local government worldwide is expected to exceed **\$423 Billion**”

– Gartner Group



1 Strategic Accessibility Services

- Discovery Workshop
- Strategy & Roadmap Planning
- Governance & Policy Formation
- Core Design and/or Development Framework Accessibility Assessment

2 Accessibility Integration and Compliance Management Services

- I/T Accessibility Operational Model & Plan
- Accessibility Assessments
- Accessible Web & Application Design
- I/T Accessibility Development & Test Integration
- Accessibility Training Modules & Services
- I/T Accessibility Marketing & Communications
- Rich Digital Media Captioning Services
- Compliance Monitoring & Tracking Services
- I/T Accessibility Outsourced Staffing Services



The Inclusive Enterprise

Enabling human-centric business transformation



1 Do you have a **strategy** for managing Enterprise Accessibility Risk?

IBM can help enterprises with strategic risk assessment and planning:

- Conducting a **Discovery Workshop**, a quick assessment of your risk profile
- Helping you develop an **Accessibility Strategy and Roadmap** to map to your to-be state
- Helping you form **Governance and Policy** mechanisms to manage risk
- Assessing the accessibility of your **Core Technology Design and/or Development Frameworks**



The Inclusive Enterprise

Enabling human-centric business transformation



2 Do you need help integrating Enterprise Accessibility Risk mitigation processes into your operation?

IBM helps enterprises with enterprise-wide integration of risk mitigation processes into its operation:

- Developing an **I/T Accessibility Operational Model & Plan**
- Assessing **internal and customer-facing applications conformance to standards** using automated tools and other methods
- Advising on **accessible I/T solution design**
- Integrating **best practices into the full I/T development life cycle** (design, dev, test)
- Developing and delivering **Accessibility Training Modules & Services**
- Implementing **media captioning and editing services**



The Inclusive Enterprise

Enabling human-centric business transformation



1. Catalog



- IBM has led for nearly 30 years in accessibility
 - 1984: Development began on IBM Screen Reader for DOS
 - 1999: IBM codified internal accessibility standards for hardware and software development
 - Collaborated in development of leading accessibility standards: US Section 508, WCAG, WCAG 2.0, ARIA, OpenAjax Alliance, and more
 - Enterprise product development
 - Experience ranges from assistive technologies to accessible enterprise applications
- Enterprise Compliance offerings catalog and codify IBM experience
 - Education, examples, processes, other reference materials
 - IBM Consulting experience
 - Automated rules and processes to improve productivity



2. Customize

- Enterprise Compliance offerings create your corporate standards
 - Remove distractions: Disable unused practices

- Web Standards
 - 1.1a: Text alternatives
 - 1.1b: Non-text content
 - 1.1c: Image maps



–Add examples that your developers understand:



3. Test

- Enterprise Compliance tools match customized standards

Web Standards

1.1a: Text alternatives

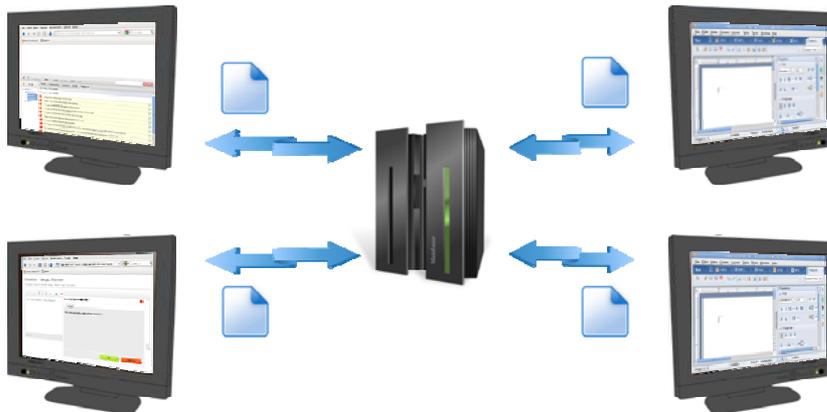
1.1b: Non-text content

1.1c: Image maps



Images must have an alt attribute, and must be the empty string if decorative.

- Ensure confidential content remains confidential
- Ensure developers and testers are synchronized on the same standards and rules





4. Record

- Associate records with deliverables from your business systems
- Customize records based on selected standards

- Web Standards
 - 1.1a: Text alternatives
 - 1.1b: Non-text content
 - 1.1c: Image maps



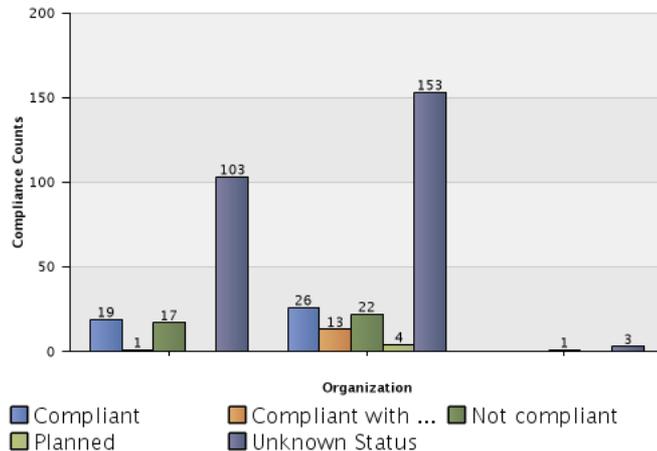
1.1 Text Alternatives: Provide text alternatives for all non-text content so that it can be changed into other forms people need, such as large print, Braille, speech, symbols or simpler language

1.1a Text alternatives All non-text content that is presented to the user has a text alternative that serves the equivalent purpose	* Status No answer	Comments
1.1b Non-text content A descriptive label is provided for time-based media, including live audio-only or live video-only content. Non-text content that is used to confirm that content is being accessed by a person rather than a computer is available in different forms to accommodate multiple disabilities.	* Status No answer	Comments

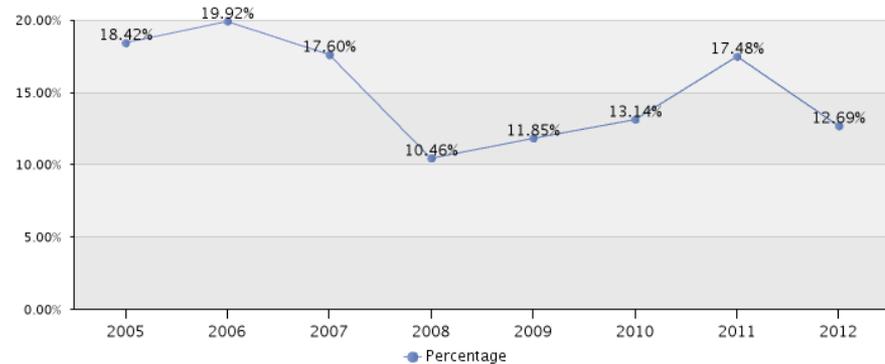


- Identify QA issues and risks in your organization
 - Check records against your portfolio
 - Track compliance trends

Compliance by Owning Organization



Compliance Trend in Date Range by Year





Provide automated Captioning, Transcription and Editing
Capability
for
exponentially increasing multimedia content



A collaborative effort from global IBM Research
team

Human Ability & Accessibility Center
China Research Lab
Tokyo Research Lab

Using state-of-the-art
IBM Automatic Speech Recognition (Attila)



- Started customer pilots on SmartCloud Innovation Center – August 2012
- Pilots with customers
 - Canadian Hearing Society
 - Liberated Learning Consortium
 - NASA, Universities, broadcasters
- Pilots ended on Jan 21, 2013
- Good feedback and interest

Comments from a pilot customer

Not counting the punctuation, capitalisation, Canadian spelling, etc. the accuracy was over 90%. This is for a video where there is a chunk in the middle of computer-generated voice, which MCE does not do well with. Word for word accuracy if you don't include the middle chunk with the computer-generated voice is closer to 97%, which is pretty astounding.



- Launched in October 2012
- Submitted videos are required to have captions
- Extensively used within IBM

Comments from W3

- “Love this tool ... was able to transcribe/caption a 4minute video in under an hour. This could really change how the w3 team does a lot of things ...”
- “I’m really, really happy with the results. **Really happy.** Thanks for a great tool.”
- “ I’m getting more and more people up and running on DigiCapE ...”

W3 Media Library

Steve Solazzo 2013 kickoff video blog -- FLV version

From the series [On the Move](#)

Added by Peter M. Garafola Jan 3, 2013

Getting a fast start in GBE

Length: 8 minutes 10 seconds

Average rating: unrated | 16 downloads (3.2/day)

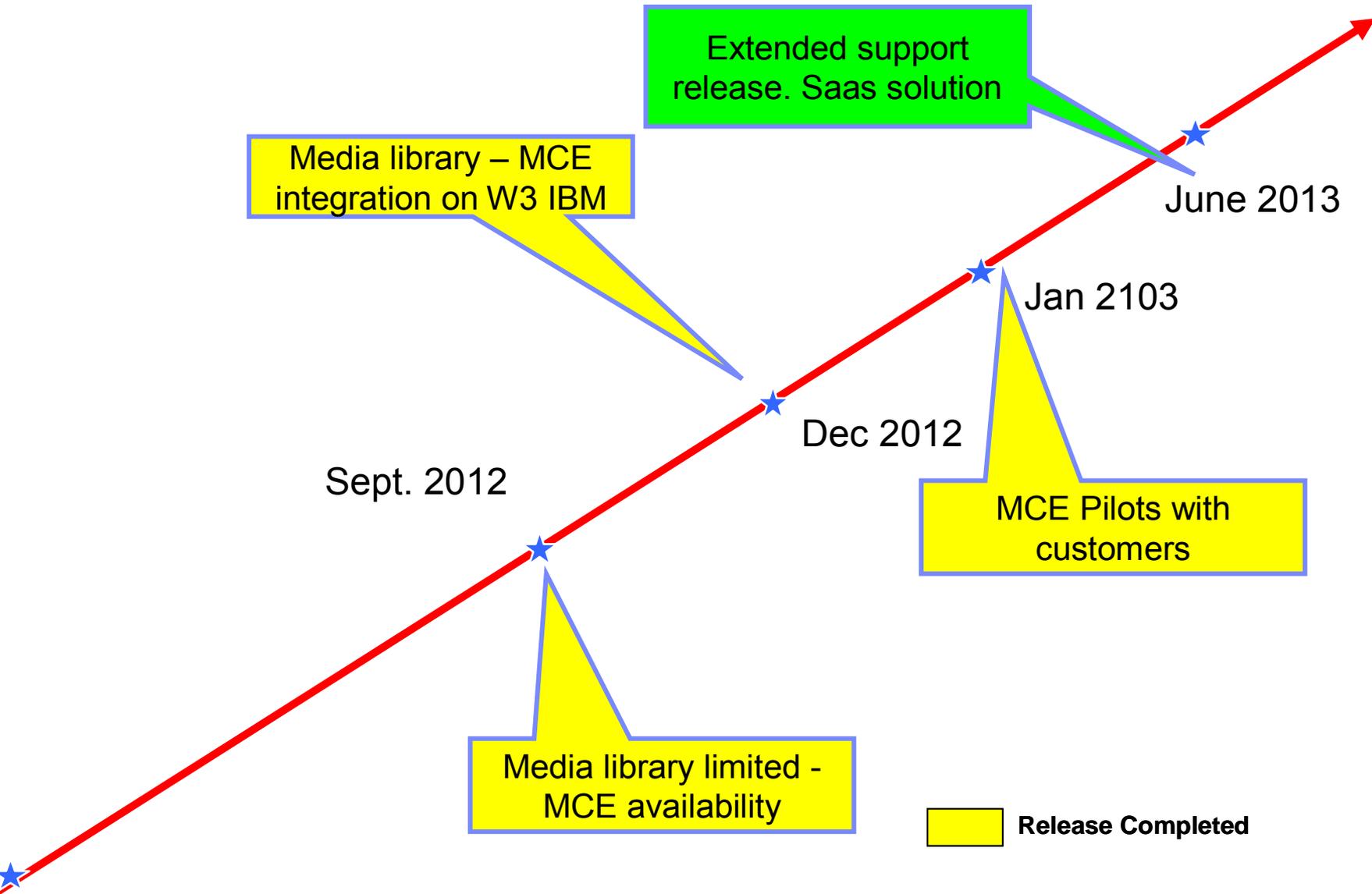
Tags: [general_business](#) (210) [kickoff](#) (100) [GeneralBusiness](#) (97) [GBE](#) (26) [2013](#) (9) [Solazzo](#) (6) [add a tag](#)

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Before I discuss our priorities for this year

Average

Media Captioning Roadmap - Tentative





- Planned for General Availability later this year
- Accessible Web GUI
- Provides translation services for captions
- Provides captions and alignment to transcripts
- SaaS solution compatible with cloud infrastructure

