

**ISO/IEC JTC 1**  
**Information technology**  
**Secretariat: ANSI (United States)**

**Document type:** Business Plan

**Title:** SC 36 Business plan September 2013 - August 2014

**Status:** This document is circulated for review and consideration at the November 2013 JTC 1 Penary meeting in France.

**Date of document:** 2013-10-11

**Source:** SC 36 Secretariat

**Expected action:** ACT

**Action due date:** 2013-11-04

**Email of secretary:** [lrajchel@ansi.org](mailto:lrajchel@ansi.org)

**Committee URL:** <http://isotc.iso.org/livelink/livelink/open/jtc1>

**ISO/IEC JTC 1/SC 36**  
**Information technology for learning, education and training**  
**Secretariat: KATS (Korea, Republic of)**

**Document type:** Business Plan

**Title:** SC 36 Business plan September 2013 - August 2014

**Status:** Submit to JTC 1 Secretariat.

**Date of document:** 2013-10-08

**Source:** SC 36 Secretariat

**Expected action:** INFO

**Email of secretary:** [eunsook@kats.go.kr](mailto:eunsook@kats.go.kr)

**Committee URL:** <http://isotc.iso.org/livelink/livelink/open/jtc1sc36>

**BUSINESS PLAN FOR ISO/IEC JTC1 SC36**  
**Information Technology for Learning, Education, and Training (ITLET)**  
<http://www.iso.org/jtc1/sc36>

- **Period Covered:** September 2013 through August 2014
- **Submitted By:** Erlend Øverby , JTC1/SC36 Chair, Eunsook Kim, JTC 1/SC36 Secretariat

## **1. Management Summary**

### **1.1 Chair Remarks**

An ISO and IEC International Standard embody the essential principles of global openness and transparency, consensus and technical coherence. In SC36, these principles are safeguarded through development of International Standards representative of all interested National Bodies (NB), and Liaison Organizations (LO), utilizing proven and “value added” processes. These principles also have enabled the production of global and market relevant Standards and Technical Reports, which are recognized and implemented by global users to 1) Facilitate global trade, 2) Improve quality, security, and consumer protection, and 3) Global dissemination of technologies and good practices, all of which contribute to economic and social progress. As part of the proven and “value added” processes used, the SC36 Business Plan is developed and used to provide the necessary information and strategies to effectively manage the activities for the development and execution of the SC36 program of work. The overall strategic direction contained in the SC36 Business Plan is in line with, and implements key objectives and added values of ISO’s Strategic Plan 2011-2015.

Formal Business Planning Processes are important in creating a stable and realistic Business Plan. The extension of Formal Business Planning Processes to SC36 has been formalized by the use of an Advisory Group (AG) on Business Planning and Communications. The intent of utilizing these business planning processes is to

- assist in alignment of the SC36 work program with expressed business environment needs and trends,
- assist SC36 to prioritize among different projects,
- identify the benefits expected from the availability of International Standards,
- assist in use of collaboration tools within SC36, and
- assist in the development and implementation of the SC36 Business Plan.

SC36 continues to serve as the pre-eminent international forum for standards development in Information Technology for Learning, Education, and Training (ITLET). In fulfilling a leadership role in the IT LET standards and specifications domain, SC36 has an emerging reputation for quality and innovation – by utilizing proven, value added processes and procedures in producing International Standards and Technical Reports. Only by ensuring quality and innovation for the implementers and users of SC36 products, will the global use of Information Technologies in Learning, Education and Training achieve its potential.

## 1.2 JTC1/SC36 Statement of scope, vision, purpose and core values

### Scope:

Standardization in the field of information technologies for learning, education, and training to support individuals, groups, or organizations, and to enable interoperability and reusability of resources and tools.

### Excluded:

The SC shall not create standards or technical reports that define educational standards, cultural conventions, learning objectives, or specific learning content.

In the area of work of this SC, standards and technical reports will not duplicate work done by other ISO or IEC TCs/SCs, or WGs with respect to their component, specialty, or domain. Instead, when appropriate, normative or informative references to other standards shall be included. Examples include documents on specialty topics such as multimedia, web content, cultural adaptation, and security.

### Vision:

A unified set of IT standards widely accepted by the intended class of users in the Learning Education and Training Market.

### Purpose:

- Provide quality IT LET standards that meet stakeholder needs.
- Promote the use of IT LET standards produced by providing supporting materials.
- Provide leadership in IT LET standardization through:
  - The development of a comprehensive set of integrated standards with broad international and professional consensus;
  - Initiating cooperative work with international professional and standards developing organizations;
  - A framework that:
    - Facilitates the integration of standards developed in other standards developing organizations;
    - Facilitates cooperation in the development of standards produced in SC36 and in other international standards developing organizations;
    - Minimizes the inconsistencies between related standards including those developed by other standard developing organizations.

### Core Values:

International Consensus:

- Active engagement and participation of National Bodies and Liaison Organizations.
- Full and open deliberation.
- Informed participation.
- Use of advanced collaboration tools.

Leadership & Expertise

- Utilization of proven “value added” processes.

- Expertise in the development of International Standards and related guidance.
- Engagement of international and regional networks, initiatives and policies through National Bodies and Liaison Organizations.
- Dissemination of new technologies, new business methods, and effective management.

#### Quality & Innovation

- Commitment to quality.
- Development of a coherent set of deliverables based on best practice.
- Awareness of emerging and related technologies.
- Recognition of the importance of continuity in standards development.

#### Informed and Responsive Development

- Awareness of the market.
- Maintaining awareness of software, system, learning, education, and training best practices
- Ability to quickly adjust to changing markets.

#### Inclusion of Different Educational, Cultural and Linguistic Paradigms

- Ability and willingness to accommodate the needs of linguistic and cultural diversity within International Standards and related guidance.
- Active recruitment of National Bodies and Liaison Organizations.
- Participation in related activities of National Bodies and Liaison Organizations.

### 1.3 Project report

See Annex A

### 1.4 Cooperation

SC36 has identified two aspects of cooperation in successfully planning, implementing and completing a program of work.

- Internal cooperation: JTC 1 entities and ISO TCs/SCs
- External cooperation: Standards Development Organizations, Consortia, Fora

External standards development organizations, consortia, and fora could be considered competition. From a Business Planning perspective, SC36 views these organizations as partners in planning, developing and completing a global market relevant program of work.

#### 1.4.1 Organizations

The following standards development organizations, consortia, and fora are related to JTC1/SC36 activities:

- **ADL (Advanced Distributed Learning):** The US government ADL initiative started originally in 1997 within the US Department of Defense, but now includes other Federal agencies. There is collaboration between ADL participants and CEN TC 353, IMS, IEEE, and AICC organizations. ADL has a category A liaison with SC36.



URL: <http://www.adlnet.org>

- **AICC (Aviation Industry CBT [Computer-Based Training] Committee):** This consortium has existed since 1988 and focuses on a particular user community: the aviation industry. This organization has developed specifications and test suites. Their specifications (e.g., CMI, a learning management system) have had the largest adoption in the marketplace. AICC has a category A liaison with SC36.  
URL: <http://aicc.org>
- **AUF (Agence Universitaire de la Francophonie):** This organization coordinates educational activities in relation with around 100 French-speaking universities worldwide. It proposes to support the action plans for countries wishing to gradually expand education in national languages into standardized education systems. AUF has a category A liaison with SC36.  
URL: <http://www.auf.org>
- **CEN TC 353 Information and Communication Technologies for Learning, Education and Training:** The Technical Committee focuses on the development of standards for European mobility, frameworks, competencies and learning outcomes, quality, vocabularies, and adaption and integration of European policies and works in close cooperation with the existing CEN Workshop on Learning Technologies. It has approved and published several standards amongst them the adaptation of the quality standard from SC36 ISO/IEC 19796-1 as European Norm (EN). CEN TC 353 has a Category A liaison with SC36.
- **CEN WS-LT (Learning Technologies Workshop):** This workshop within CEN/ISSS has produced a report on critical standardization areas for Europe and several CEN Workshop Agreements (CWAs). CEN WS-LT has a category A liaison with SC36.  
URL: <http://www.cenorm.be/iss/Workshop/LT>
- **DCMI (Dublin Core Metadata Initiative):** The DC-Education WG was established in 1999-09 for the purposes of describing educational resources to achieve interoperability within the framework of DCMI. SC36 has a category C liaison with DCMI.  
URL: <http://dublincore.org> and <http://dublincore.org/groups/education>
- **IEEE LTSC (Learning Technology Standards Committee):** This committee has active working (or study) groups developing learning technology standards. IEEE LTSC has a category A liaison with SC36.  
URL: <http://ltsc.ieee.org>
- **IMS Global Learning Consortium:** IMS originated in 1997 in the US with its membership drawn from academic and commercial organizations. It has quickly grown to include international participation and its investment membership has broadened to include content developers and government agencies. IMS has over 200 "development network" members that review and use IMS-developed specifications. IMS specifications are aimed at delivering

interoperability for systems that support online learning, education and training. IMS has a category A liaison with SC36.

URL: <http://imglobal.org>

- **LETSI International Federation for Learning-Education-Training Systems Interoperability:** LETSI is a non-profit consortium of e-learning adopters and associations, standards bodies, systems integrators, policy makers, and educational product and services vendors. The LETSI community seeks to finally realize in education and training the revolutionary impact technology has had in other aspects of our lives. By creating free and open interoperability frameworks for software systems, LETSI promotes the long-term sustainability of major e-learning initiatives: reducing overall risk, stabilizing markets, stimulating investment, and leveling the innovation playing field. LETSI has a category A liaison with SC36.  
URL: <http://www.letsinfo.org/display/welcome/Home>

## 1.4.2 Liaisons

Cooperation with standards development organizations, consortia, and fora related to JTC1/SC36 activities are a key to the accomplishment of the work program. In order to facilitate efficient production and adoption of needed global standards and specifications, SC36 has created liaison relationships with organizations both internal and external to JTC1. As market requirements evolve the program of work, SC36 continually evaluates the need to create new liaison relationships. Where appropriate, to focus on specific technology areas, SC36 has defined specific WGs within these organizations in executing liaison relationships.

Internal liaison:

- ISO TC 37: Terminology and Other Language and Content Resources
- ISO TC 37/SC2: Terminographical and lexicographical working methods
- ISO TC 46: Information and Documentation
- ISO/TC 176 Quality management and quality assurance
- ISO/TC 215 Health informatics
- ISO/TC 232: Learning services for non-formal education and training
- JTC1/SC 17: Cards and Personal Identifications
- JTC1/SC 27: IT Security Techniques
- JTC1/SC 32: Data Management and Interchange
- JTC1/SC 34: Document Description and Processing Languages
- JTC1/SC 35: User Interfaces
- JTC1/SC 39: Sustainability for and by IT
- JTC1/SWG5-IoT: Internet of Thing
- JTC1 Vocabulary Maintenance Team

External liaison:

- ADL: Advanced Distributed Learning
- AICC: (Aviation Industry CBT [Computer-Based Training] Committee)



- AUF: Agence Universitaire de la Francophonie
- CEN/TC 353: Information and Communication Technologies for Learning, Education and Training (ICT for LET)
- CEN WS-LT: CEN Workshop for learning technology
- DCMI: Dublin Core Metadata Initiative
- IEEE LTSC: Learning Technology Standards Committee (Focus on WG20, WG12)
- IMS: IMS Global Learning Consortium
- LETSI: International Federation for Learning-Education-Training Systems Interoperability
- IDPF: International Digital Publishing Forum
- Infoterm: International Information Centre for Terminology
- W3C:IndieUI: W3C Web Accessibility Independent User Interface

## **2. Period Review**

### **2.1 Market requirements**

It has been estimated that the learning, education, and training industry is over 1 trillion Euros per annum worldwide. Much effort is being spent on information technology and its integration within the learning environment. Regional entities, such as the EU and Asian e-Learning Network 2, are spending considerable effort on multi-cultural learning resources and environments.

With an expanding market for information technology related implementations of learning, education and training, there continues to be a strong need for international standards and technical reports on information technology to be used by key stakeholders from within the industry — such as learning content developers, government educational authorities, learning systems developers, training service providers, and university consortia, etc.. While currently evolving Internet and web technology specifications can be effectively harnessed for learning, education, and training they do not specifically accommodate the range of requirements that are needed to support rich learning experiences on a global scale.

Most learning, education, and training institutions and learners are under funded. Successful international standards would allow learners, institutions, and other consumers to purchase information technology for LET that worked "right" and interoperated. Not only would the development and use of international standards produce a direct cost savings, but the LET information technology systems could be used in a wider range of applications, and used more efficiently.

The "learners" include home users, nomadic users, institutional users, children and adult users. The variety of learning environments includes standalone, classroom, networked, internet-based, nomadic, federated (groups of resources), distance, collaborative, asynchronous, synchronous ones, and so on. With all these environments and international participants, international standards are critical for high interoperability and convergence in the marketplace.

Learning environments are unique in that standardization and interoperability are required across many "qualities of implementations", including cell phones, PDAs, e-readers, laptops, standalone PC workstations, workstations with high-speed internet access, and high-fidelity simulators and trainers. Interoperability is necessary among low-cost, consumer, high-cost, and specialized learning technology systems.

Effective communication with NBLO's and market stakeholders is key in identifying and verifying LET IT "best practices" and needs. These identified "best practices" and needs are used as inputs for determining Market Requirements. SC36 has begun to incorporate specific strategies in capturing existing practices and needs. Built on SC36 AG/BPC activities, each SC36 Plenary meeting now has a co-located forum, funded entirely outside of SC36, where regional government and industry leaders participate. Besides offering qualified speakers to the forums, SC36 NBLOs are able to receive needed regional information on "best practices" and needs from the forums. This information is utilized in the SC36 Business Planning process in identifying verifiable Market Requirements. Data and information collected over time, enables SC36 to identify current and emerging technologies and market trends.

Conversely, these forums are key in disseminating information about the SC36 program of work to the international community. The sharing of information on emerging SC36 Standards and Technical Reports allows key stakeholders an insight into the globalization of technologies and "best practices" in Information Technologies for Learning, Education and Training. SC36 has also begun participation in global forums such as the WSIS e-learning Forum in both collecting and disseminating critical market information.

SC36 also utilizes its Liaison and JTC1 structures to gather critical market information. For example, SC36 utilizes the JTC1 SWG on Planning to gain insights on emerging technologies and issues germane to SC36 activities. As another example, Distance Learning and the use, integration, and additional needed standards from JTC1 SCs was an area of focus at the 2009 JTC1 Plenary at Tel Aviv Israel. In response to the JTC1 request to collect information from JTC1 SCs information needed to develop an integrated solution utilizing IT standards developed by JTC1 SCs, SC36 crafted a survey to collect information as a first step. SC36 will leverage collected information in identifying the standards that fulfill market requirements for this specific technology area as part of the SC36 Business Planning Processes. Based on current information, the work focus of SC36, and its current structure aligns with the marketplace in several major areas of technical specification (non-exhaustive list):

- **Vocabularies and Taxonomies:** Standards are necessary for terminology, both human readable and machine interpretable.
- **Architectures:** Standards are necessary for architectures from a variety of perspectives, such as: component-based, lifecycle-based, communication-based, collaboration-based.
- **Learning Content:** Standards are necessary for cataloging, content formats, content structure, localization, metadata, and internationalization.
- **Participant Information:** Specification of information such as regarding capabilities and accessibility needs (e.g. of learners), learner competencies, mobile learning, availability (e.g. of tutors) and available substitution (e.g. by an automated helpdesk), and learning context (e.g. job context of an employee).
- **Management Systems:** Standards are necessary for harmonizing procedures and data models for the purpose of exchanging information among many categories of participants (represented by humans or software agents), many categories of stored information (like learning content or participant information), and many categories of functional components (like learning management systems and content repositories) in IT-supported learning environments.
- **Collaboration:** Standards are necessary for collaboration technologies that are specific to learning environments.
- **Assessment:** Standards are necessary for technologies that support interoperability of evaluation, questioning, certification, and accreditation systems and components.

- **Descriptive Frameworks:** Standards are necessary for the provision of accurate, well-defined descriptions of software, services, content, quality etc. Standards are necessary for conceptual frameworks.

SC36 continues to develop standards on these mature technologies, relevant technical reports as these technologies mature, and as the market demands. Supported by its Business Planning Processes, the structure and resources of SC36 can quickly react to rapidly changing market needs.

The market also demands "standards" in non-technical areas, such as "education standards". The development of non-technical standards is well *outside* the scope of SC36. SC36 will not create these kinds of local, regional, culture-specific, or political standards, but SC36 technical standards and other technical standards may facilitate, accommodate, or disseminate non-technical standards.

## 2.2 Achievements

Since its formation, SC36 has conducted twenty six Plenaries and has gathered the interest of forty five National Body members (both P and O members), and twenty six Liaison Organizations. Attendance and participation have been at steady levels at Plenary and related WG meetings.

In the period of 2012-12 and 2013-09, SC36 has accomplished the following major milestones:

- ISO-IEC 29187-1: 2013 - Information technology - Identification of privacy protection requirements pertaining to learning, education and training (LET) - Part 1: Framework and reference model”
- ISO/IEC 12785-1:2009/Cor 1. 2013 - ITLET - Content packaging - Part 1: Information Model

### 2.2.1 Meetings

Since the 1999-11 JTC1 Plenary in Seoul, SC36 holds plenary meetings every 6 months in the months of March and September until 2011, and has held plenary meetings every 1 year in the months of September since 2012. Because of its formation, SC36 has had a trend in increasing participation by National Bodies (NBs) and Liaison Organizations (LOs). Interest in the work of SC36 continues to grow as reflected by the historical trend in attendance at meetings. The list of past meetings and approximate meeting attendance for the past SC36 Plenary and WG/AG meetings are:

#	Date	Location	Approximate Total Attendance
26	2013-09	Moscow, Russia	53(2)*
25	2012-09	Busan, Korea	78
24	2011-09	Shanghai, China	67
23	2011-03	Strasbourg, France	62
22	2010-09	State College, US	58
21	2010-03	Osaka, Japan	68
20	2009-09	Umeå, Sweden	64

19	2009-03	Wellington, New Zealand	62
18	2008-09	Stuttgart, Germany	68
17	2008-03	Jeju Island, Korea	73
16	2007-09	Toronto, Canada	70
15	2007-03	London, UK	73
14	2006-09	Wuhan, China	75
13	2006-03	Turku, Finland	81
12	2005-09	Durham, US	79
11	2005-03	Tokyo, Japan	78
10	2004-09	Dublin, Ireland	61
9	2004-03	Montreal, Canada	75
8	2003-09	Seoul, Korea	50
7	2003-03	Paris, France	85
6	2002-09	Lawrence, Kansas, US	50
5	2002-03	Adelaide, Australia	40
4	2001-09	Copenhagen, Denmark	Cancelled
3	2001-03	New York City, US	35
2	2000-09	Sedona, US	25
1	2000-03	London, UK	35

\* ( ) is attendees by teleconferencing

## 2.3 Resources

SC36 has the resources of 45 National Bodies and 25 Liaison Bodies to staff seven Working Groups, and 1 Advisory Group. Section 1.4.2 lists the current Liaison Organizations actively working with SC36. Currently, SC36 has a Secretariat provided by the Republic of Korea, and a Chair, provided by the Norway.

### 2.3.1 Membership

Forty five NBs are members of SC36 as of 2013-09: 23 P-members and 22 O-members.

- **P (participating) members:** Algeria (IANOR), Australia (SA), Canada (SCC), China (SAC), Denmark (DS), France (AFNOR), Germany (DIN), India (BIS), Italy (UNI), Japan (JISC), Kenya (KEBS), Luxembourg (ILNAS), Netherlands (NEN), Norway (SN), Portugal (IPQ), Republic of Korea (KATS), Russian Federation (GOST R), Slovakia (SUTN), South Africa (SABS), Spain (AENOR), Tunisia (INNORPI), Ukraine (DSSU), United Kingdom (BSI).
- **(observing) members:** Belgium (NBN), Bosnia and Herzegovina (BAS), Columbia (ICONTEC), Czech Republic (UNMZ), Finland (SFS), Ghana (GSB), Hong Kong China (ITCHKSAR), Hungary (MSZT), Indonesia (BSN), Iran, Islamic Republic of (ISIRI), Ireland (NSAI), Kazakhstan (KAZMEMST), Malaysia (DSM), New Zealand (SNZ), Romania (ASRO), Saudi Arabia (SASO), Serbia (ISS), Singapore (SPRING SG), Sweden (SIS), Switzerland (SNV), Turkey (TSE), United States (ANSI).

### 2.3.2 Organizational structure

To accomplish the SC36 work program in an efficient manner, SC36 currently has seven Working Groups, and one Advisory Group. The organizational structure reflects the needs in efficiently fulfilling and managing the current program of work. Since there are relationships between projects, there are several experts who participate in more than one WG. To ensure effective vocabulary harmonization, there are members who serve as Liaisons between WG1 Vocabulary and the other WGs. Each WG has specific responsibilities in developing International Standards and Technical Reports in a specific LET technology area. The Advisory Group on Business Planning and Communication assists in SC36's Formal Business Planning Process, and plays a key role in supporting WG activities such as identifying market trends, promoting SC36 products, disseminating information to the public, increasing participation, and assisting National Member Bodies in promoting IT for LET.

- **WG1: Vocabulary** - developing domain-specific LET terminology standards within the frame of the existing multipart ISO/IEC 2382 standard for IT vocabulary. WG1 focuses on facilitating international communication in information technology for learning, education and training using harmonized multilingual ITLET terms and definitions.
- **WG2: Collaborative and Intelligent Technology** - developing several standards to support the IT aspects of learner collaboration and the use of intelligent technology in LET environments.
  - **Scope:** Standardization in the areas of Collaborative Technology, Intelligent Agent Technology and Intelligent Systems for ITLET implementations.
- **WG3: Participant Information**
  - **Scope:** information about roles and organisational positions held by participants within an ITLET system; personal information about participants using an ITLET system, including factual (name...), contextual (location, job title...) and biographical information (birth date, qualifications...); shared information (competencies...) between a participant using an ITLET system and an organisation, about the activity of the participant within the organisation; information needed by a LET environment to provide adequately the relevant products and services of an ITLET system to which the participant is a registered member.

- **WG4: Management and Delivery of Learning, Education, and Training** - focusing on developing standards for search, delivery, management and analysis of digital content and resources
  - **Scope:** metadata for LET purposes, content interaction and connectivity within LET service environments and analytics related to management and delivery of LET
- **WG5: Quality Assurance and Descriptive Frameworks** - focused on developing standards that provide quality standards, and framework guide-lines and support functions specifically for the field of learning, education and training, in particular e-learning.
- **WG6: Platform, Services, and Specification Integration** – focused on IT related standardization that supports development, integration and use of platforms, services and specifications where specific LET stakeholder requirements must be fulfilled. This involves the creation of standards that detail how specific technologies may be integrated in an ITLET system.
- **WG7: Culture, Language, and Individual Needs** - developing a framework for content and user interfaces to be accessible by users with disabilities – where ‘ disability ’ is conceived not as something a person lacks, being instead a mismatch between learner needs and the education delivered.
  - **Scope:** The responsibility of ISO/IEC JTC1/SC36/WG7 is to develop standards ensuring that relevant features and processes of Information Technology for Learning, Education and Training are adaptable to the requirements of individual users. WG7 also serves as a resource, consultant, and reviewer of relevant activities facilitating a harmonised approach to accessibility within the scope of SC36.
- **AG on Business Planning and Communications** – focused on implementing and maintaining a formal business planning process for SC36, and is responsible for coordinating, aligning, and in many cases, delivering marketing and communications to support the engagement of stakeholders in the standards development process and awareness and adoption of our work products.

### 3. Focus Next Work Period

#### 3.1 Future meetings

In the near future, SC36 and its subgroups will meet face-to-face as follows:

- |           |                                  |                             |
|-----------|----------------------------------|-----------------------------|
| • 2014-06 | 27 <sup>th</sup> Plenary and WGs | United Kingdom(Provisional) |
| • 2015-06 | 28 <sup>th</sup> Plenary and WGs | Germany(Provisional)        |
| • 2016-06 | 29 <sup>th</sup> Plenary and WGs | China(Provisional)          |
| • 2017-06 | 30 <sup>th</sup> Plenary and WGs | Australia(Provisional)      |
| • 2018-06 | 31 <sup>th</sup> Plenary and WGs | Norway(Provisional)         |

## 3.2 Strategies

The following strategies will be employed in implementing the Scope, Vision, Purpose, and Values of SC36 and in efficiently executing the SC36 program of work. These Strategies are in line with, and implements key objectives and added values of ISO's Strategic Plan 2011-2015.

- Adherence to the Merged ISO/IEC Directives Part 1 and the JTC1 Supplement: Work in strict accordance with the Merged ISO/IEC Directives Part 1 and JTC1 Supplement in all matters.
- Establish active liaisons with other internal and external organizations, whenever applicable.
- Improve communication within the SC36 structure by incorporating advanced collaboration tools.
- Establish official representation and participation in discussion lists and forums to ensure the SC36 presence in emerging sectors.
- Encourage official representation at and participation in important LET related events.
- Continuation of a Business Planning Process (BPP) to keep up to date with trends in multiple sectors. This will assist in identifying:
  - New areas for standardization.
  - Existing work that can be used as input material for new standards.
  - Existing standards that can be fast tracked.
  - Standards in need of revision.
  - Standards that should be withdrawn.
  - New liaison partners.
  - Adapt standards to emerging trends
  - Exploit systematically the BPP awareness system.
  - Early assignment of an emerging trend to an appropriate Working Group.
  - Timely publication
  - Utilize processes to create new work items quickly.
- Make a decision quickly on the standards process to be used, either the International Standard/Technical Report.
- Leverage the existing work of National Member Bodies and Liaison Organizations.
- Dissemination of information by various distribution channels (seminars, workshops, leaflets, websites, etc).
- Establish the value of each standard.
- Ensure full and open discussion.
- Focus on quality.

## 3.3 Risks and risk mitigation strategies

SC36 intends to proactively manage risks through the application of a Formal Business Planning Process. Below are identified key risk areas, with Risk Mitigations.

- There might not be enough administrative support or experience to meet the needs of SC36.
- SC36 has several participants with substantial JTC1 experience, which may mitigate these risks.
- Committee not sufficiently representative of cultures and regions.
- SC36 is actively recruiting new Member National Member Bodies and Liaison Organizations. Several are added each year.
- Lack of Global awareness of SC36 Work Program, Standards and Technical Reports.

- SC36 has and will continue to support e-learning related forums held in conjunction with SC36 Plenary meetings.
- SC36 is actively involved in publishing articles for use in international publications such as the ISO Focus and ISO Management Magazines.
- SC36 has implemented a communication web site: <http://www.sc36.org/index.jsp>
- Lack of collaboration between meetings.
- SC36 has established a AG on Business Planning and Communication to recommend and assist in implementing appropriate collaboration tool sets.
- The tasks of drafting standards, managing working groups, etc., are largely dependant on a "volunteer" work force (i.e. the experts who perform these functions are supported in their work by an organization other than the SC36 itself). SC36 projects are dependant on the skills of these experts.
- SC36 is committed to incorporate advanced collaboration tools to reduce the number of interim meetings in order to reduce travel costs, allowing globally recognized experts to actively and efficiently participate.
- ISO/IEC JTC1 procedures can be daunting and/or off-putting to newcomers to the processes used. The reasons for specific procedures are sometimes not clear to the experts who contribute to SC36 work.
- SC36 is investigating the feasibility of conducting orientation training to acclimate new members to the SC36 program of work and procedures used.
- SC36 is identifying, and posting links to training materials on the SC36 Communication Website.
- For reference purposes, SC36 has developed Standing Documents for “SD01 Guidelines to be Applied in the SC36 Comment Resolution Process”, “SD02 Roles and Responsibilities of Liaison Officers”, “SD03 Roles and Responsibilities of Project Editors”, and "SD04 WG/RG Convener Roles and Responsibilities”
- Creating a new standard with minimal base documents can be time consuming.
- SC36 is committed to leverage its relationship with Liaison Organizations with stable specifications on which to base standards on. Internationalization of consortia and fora documents is a proven and successful strategy.

### **3.4 Work program priorities**

SC36 is also focusing on emerging technologies in the marketplace. Based on inputs from NBLOs, International Forums, and the Business Planning Process, SC36 is focused on studying and reviewing technologies in the areas such as of mobile learning, concept mapping, integration of automated processes for supporting collaborative activities, managing and exchanging participant information (e-portfolio implementation; semantic information models), and e-Assessment with particular focus on e-Testing, quality of e-Assessments, and quality and validation of single e-Assessment items.

Additionally, SC36 is focusing on all other projects in varying stages of development. In doing so, SC36 is effectively utilizing the resources of global experts of NBLO participants. Additional focus on expanding NBLO representatives is a key for achieving relevant internationalization of the SC36 work program.



(Annex A)

## SC36 work of program

### Active work items(31 projects)

Stage	Reference	Title	WG	Limit date/ DIS Registered
50.20	ISO/IEC FDIS 2382-36 :2008(Ed 2)	Information technology – Vocabulary - Part 36: Learning, education and training - Amendment 1	1	
30.20	ISO/IEC PDTR 18120	e-Textbook	6	
30.20	ISO/IEC PDTR 18121	Virtual Experiments	6	
10.99	ISO/IEC NP TR 19778-4	ITLET - Collaborative technology - Collaborative workplace - Part 4: User guide for implementing, facilitating and improving collaborative applications	2	
40.60	ISO/IEC 19788- 1:2011/DAmD 1	ITLET - Metadata for learning resources - Part 1: Framework - Amendment 1	4	2014-7-10
30.99	ISO/IEC CD 19788-4	ITLET - Metadata for learning resources-- Part 4: Technical elements	4	2013-10-1 (extened)
40.00	ISO/IEC CD 19788-6	ITLET - Metadata for learning resources - Part 6: Availability, distribution, and intellectual property elements	4	2014-3-15 (extened)
10.99	ISO/IEC NP 19788-7	ITLET - Metadata for learning resources - Part 7: Bindings	4	2013-10-14
30.20	ISO/IEC CD 19788-8	ITLET - Metadata for learning resources - Part 8: Data elements for MLR records	4	2014-3-27
30.20	ISO/IEC CD 19788-9	ITLET - Metadata for learning resources - Part 9: Data elements for Persons	4	2014-3-27
10.99	ISO/IEC NP 19788-10	ITLET - Metadata for learning resources - Part 10: Application Profile for Access, Distribution and Intellectual Property (WIPO	4	2014-3-27

			compliant) elements		
30.99	ISO/IEC 19796-4	PDTR	ITLET - Quality management, assurance and metrics - Part 4: Best practice and implementation guide	5	(extended)
40.99	ISO/IEC 19796-5	DTR	ITLET - Quality management, assurance and metrics -- Part 5: How to use ISO/IEC 19796-1	5	2013-12-22 (extended)
10.99	ISO/IEC 19796-6	NP	ITLET - Part 6: Conformity Assessment Model	5	2014-9-27
10.99	ISO/IEC 19796-7	NP	Information technology -- Quality for learning, education and training -- Part 7: Products and services -- Requirements	5	2014-3-27
10.99	ISO/IEC 20006	NP TR	ITLET - Information Model for Competency	3	
40.20	ISO/IEC 20006-1	DIS	ITLET - Information Model for Competency - Part 1: Competency General Framework and Information Model	3	2014-3-6
30.60	ISO/IEC 20006-2	CD	ITLET - Information Model for Competency - Part 2: Proficiency Level Information Model	3	2012-9-6
30.00	ISO/IEC 2006-3	PDTS	ITLET - Information Model for Competency - Part 3: Guidelines for the Aggregation of Competency Information and Data	3	2014-12-12 (extended)
40.99	ISO/IEC 20013	DTS	ITLET - Conceptual Model for e-Portfolio information	3	2013-8-8
50.20	ISO/IEC 20016-1	FDIS	ITLET - Language accessibility and human interface equivalencies (HIEs) in e-learning applications - Part 1: Framework and reference model for semantic interoperability	7	
10.99	ISO/IEC 20016-2	NP	ITLET - Human interface equivalencies -- Part 2: Template for Specifying Levels of Semantic Unambiguity	7	2014-3-27
90.60	ISO/IEC 23988 :2007(Ed 1)		Information technology -- A code of practice for the use of information technology (IT) in the delivery of assessments		

10.99	ISO/IEC 24751-2	NP	Information technology - Individualized adaptability and accessibility in e-learning, education and training - Access for all - Part 2: Registry	7	2014-3-27
10.99	ISO/IEC 24751-3	NP	Information technology - Individualized adaptability and accessibility in e-learning, education and training - Access for all - Part 3: Application profile	7	2014-3-27
10.99	ISO/IEC 29187-2	NP	Information technology - Identification of privacy protection requirements pertaining to learning, education and training (LET) - Part 2: Guidelines for information life cycle management and EDI of personal information	3	2014-3-27
10.99	ISO/IEC 29187-3	NP	Information technology - Identification of privacy protection requirements pertaining to learning, education and training (LET) - Part 3: Multilingual Vocabulary	3	2014-3-27
30.20	ISO/IEC 30119-1	CD	Quality Standard for the Creation and Delivery of Fair, Valid and Reliable e-Tests -- Part 1: Quality framework for e-Tests	5	2014-6-1
30.00	ISO/IEC 30119-2	CD	Quality Standard for the Creation and Delivery of Fair, Valid and Reliable e-Tests -- Part 2: Application guide with use cases	5	2014-10-1
20.00	ISO/IEC 36000	AWI	Quality for learning, education and training -- Fundamentals and vocabulary	5	2014-3-26
30.20	ISO/IEC 36001	CD	Quality for learning, education and training -- Management systems -- Requirements	5	2014-3-10