

**Introduction**

This document outlines what the buildingSMART alliance will focus its efforts on during 2008. It is a living document and should be updated during the year and used in development of plans for 2009 and beyond.

**Goals**

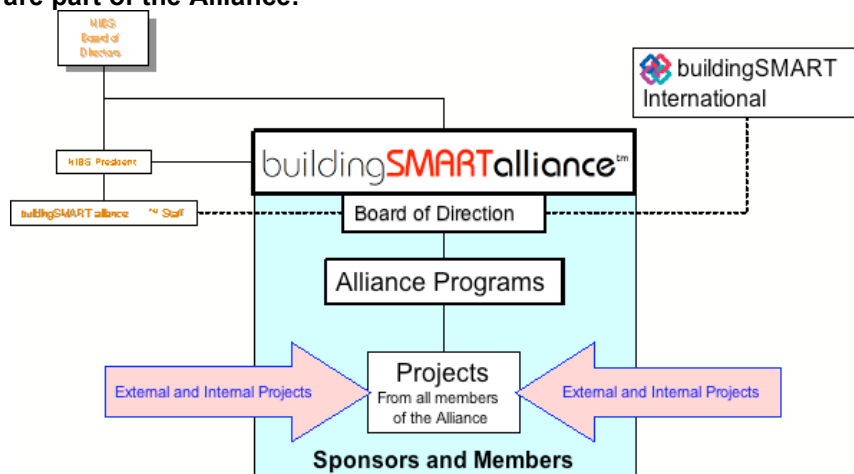
**2008 Internal Operational Goals**

These goals are assigned to the Board of Direction (BOD), to accomplish and specifically to the Executive Committee to ensure that impediments to their success are eliminated and that work is progressing to meet the stated goals.

**Organization**

**2008 Goal - To ensure that the building community understands the collaborative role of the Alliance and its relationships with NIBS, the International organization and projects that are part of the Alliance.**

Organizationally the buildingSMART alliance operates as a council of the National Institute of Building Sciences. The primary focus of the Alliance is to coordinate active and planned projects related to the Alliance



vision and mission across the construction and related industries to foster a collaborative environment that will eliminate duplicative efforts, optimize member resources, and expedite industry-wide progress toward achieving interoperability. Such projects are funded through the organization having responsibility for the project; including any projects funded by and coordinated through NIBS other councils or the Alliance itself. The value created by the Alliance is the increased visibility and efficiency achieved by open collaboration among participating organizations and their respective projects. To formalize this collaboration, a Memorandum of Understanding (MOU) will be executed between organizations having projects and the Alliance to establish mutual expectations for collaborative processes and behavior under the coordination of the Alliance. The organizational chart above shows how the Alliance relates to NIBS and the IAI/buildingSMART International and expresses the importance of the Alliance membership in the creation and operation of the Alliance.

**Projects**

**2008 Goal - Increase the visibility and number of projects that the Alliance is coordinating.**

This will be accomplished in four steps:

1. **Web Presence** - A listing and synopsis of each project will be posted on the open area of the Alliance web site. Details about the projects, such as points-of-contact, web sites, fact sheets, status, and how to participate will be provided in the member only area. Participation in listing and viewing projects will also be limited to members of the Alliance.
2. **Identify Projects For Alliance Coordination** – Associations and other organizations that are contemplating or working on projects related to BIM or otherwise relevant to the mission and vision of the Alliance will be identified and contacted about coordinating their projects through the Alliance.
3. **Provide Roadmap** – A roadmap will be developed that will identify existing industry projects to be coordinated through the Alliance, projects needed to achieve the Alliance vision and mission, and projects needed to fill the gaps.
4. **Project Coordination Meetings** – During the course of the year, 3 project coordination meetings will be held with the project leads to foster increased understanding of all projects and “touch points” for coordination, and to review status of overall industry progress against the roadmap.

Once a project is aligned with the Alliance, members will have direct access to status and members of the project team for coordination. It can also be more effectively coordinated with the work being done in other projects through the member-only section of the web site as well as scheduled project briefings and collaborative working sessions during the year.

#### **Increase Membership**

##### **2008 Goal – Triple the number of sponsors and members of the Alliance.**

Even though Alliance projects and activities will generate significant interest and enthusiasm, specific actions to increase membership will still be required. As of January 1<sup>st</sup> 2008 the Alliance had 55 members. Twenty-one were individual memberships, 17 were corporate memberships, and 17 were sponsors. During 2008, the Alliance will focus on increasing the number of sponsors to at least 34 organizations. Other member categories are anticipated to grow on their own as the Alliance leadership and its members inform the industry about its activities and coordinate new projects.

#### **Marketing and Sales**

##### **2008 Goal – Build and enhance a strong public information and communications initiative.**

Public information and direct communications provide our face to the industry, and the Alliance must be strong and relentless about improving its effectiveness and outreach. To achieve an effective level of awareness by industry, a vibrant and vigorous outreach and marketing program must be maintained through the following actions:

1. Continue to maintain and improve the web site.
2. Continue to publish articles on the activities of the Alliance and its members including the JBIM magazine
3. Publish regular press releases about Alliance activities and successes.
4. Provide education opportunities through presentations and webinars
5. Encourage Alliance members to include references to and examples of the work of the Alliance in their presentations and publications
6. Seek other opportunities to get information about the Alliance and its successes in front of practitioners and other professionals.

7. Identify and promote projects which will attract new members.

### Administrative

#### **2008 Goal – Appoint a permanent Board of Direction by July 2008.**

An interim Board of Direction was established in mid-2007. A new structure for the BOD will be defined and members will be appointed from the membership ranks of the Alliance. Plans are to have a multi-tiered organization that keeps the existing and new members active.

#### **2008 Goal – Expand staff availability.**

Currently, the organization has a half-time executive director and a part-time contract marketing person. As the Alliance grows in 2008, additional staff resources will be added commensurate with the growth of the Alliance.

### Funds

#### **2008 Goal – Allocate a major portion of funding collected for projects directly to support projects.**

Funds collected by the Alliance will be managed by Alliance staff in carrying out the direction of the BOD. Distribution of funds to support specific Alliance projects or activities will be decided by the Alliance BOD. Whether associated with coordinating external projects under the Alliance or managing projects of the Alliance, a long term goal of 10 percent of funding provided to support Alliance projects will be used for administrative purposes. Projects funded externally outside the Alliance will be coordinated by the Alliance.

### **2008 External Industry Goals**

McGraw-Hill indicates that 2008 will be the tipping point for BIM in the building industry. That being the case, pressure will mount on the Alliance to perform valuable services and show tangible successes.

Each program of the Alliance has identified specific goals for 2008, which will then be channeled to support programs of and growth in the Alliance. Projects are being identified from various groups and are contained in a master project list. These projects are aligned with various programs as identified below:

#### **Alliances & User Group Program (AUG)**

**2008 Baseline:** The buildingSMART alliance is still in its formative years. Many organizations have been identified and relationships are being forged. There are a couple of user groups in existence, but no concerted effort is yet in place to organize these groups.

**2020 Vision:** The Alliance recognizes that coordination is the cornerstone to success throughout the design-build-operate value chain. There are organizations in all major cities where people can get additional information and share experiences to coordinate information on interoperability throughout the industry.

**2008 Goal:** Expand number of associations who are members of the Alliance. Establish a network of user groups and share information among them on a regular basis.

**Representative Projects:**

Projects are currently being identified.

**Business Process Program (BPR)**

**2008 Baseline:** Some best practices are beginning to emerge, but there needs to be a single overarching industry-wide collecting organization or group to evaluate them. Information developed during planning, design and construction is still not flowing to operations and sustainment.

**2020 Vision:** A best practices organization is in place similar to the Information Technology Infrastructure Laboratory (ITIL) in the UK. Organizations can pick best practice business processes for most activities in the construction industry.

**2008 Goal:** Support and promote best practice efforts and highlight them to the community. The primary effort is still increasing the market penetration of BIM in the industry.

**Initial Representative Projects:**

- 2008-BPR-01 AIA Contracts for BIM
- 2008-BPR-02 BIMStorm™
- 2008-BPR-03 Business Process Integration
- 2008-BPR-04 COBIE
- 2008-BPR-05 ConsensusDocs
- 2008-BPR-06 Integrated Practice (IP)
- 2008-BPR-07 Early Design
- 2008-BPR-08 Legal & Risk Group

**Education Program (EDU)**

**2008 Baseline:**

Focus on Higher Education (Colleges and Universities) and Professional Practice (Continuing Education) related to emerging Building Information Modeling (BIM) technology and practice:

- Identify existing ranges of education program outcomes.
- Identify sources to work collaboratively to develop standards of common knowledge and skill.
- Provide resources for acceleration of education initiatives meeting the developed standards.

Subsequent efforts will focus on other construction industry related organizations and institutions.

**2020 Vision:** Coordinated instruction across all venues and phases of the lifecycle so as to aide the flow of information. Include all facets of the industry to engage in provide resources and participation.

**2008 Goal:** Develop a set of principals and guidelines into a standard that can be used by the educational community for this and other buildingSMART alliance programs.

**Representative Projects:**

2008-EDU-01	College & University Programs
2008-EDU-02	Continuing Education Programs
2008-EDU-03	Distance Learning
2008-EDU-04	Common Education Principles
2008-EDU-05	University Physical Plant Coordination
2008-EDU-06	Vendor Training Coordination

**Energy and Environmental Program (EEP)**

**2008 Baseline:** Linking facilities with the surrounding physical environment is critical in ensuring that the ecosystem and the facility lifecycle are united. Effects from the outside world on the facility and effects of the facility on the outside world are intertwined. Analysis of building systems is directly affected by the environment and the accuracy of that information.

**2020 Vision:** Building information and emergency response and impact assessment, for example, are easily accomplished and integrated. Broad-scale city models, based on converged building models, are common and used for enhanced neighborhood planning. Energy consumption can be modeled with interdependent information that is electronically accessible and sharable.

**2008 Goal:** Continue building deeper relationships with like-minded, mission-intersecting, standards-setting organizations across the building, environmental and energy communities. Involvement from the technology industry is fostered so that the Alliance can achieve its mission. This will be accomplished by extending inter-organizational connections with technology standards-setting organizations that are already engaged in working with environmental and energy communities.

**Representative Projects:**

- 2008-EEP-01 – AIA 2030 Initiative
- 2008-EEP-02 - gbXML

**Economic Issues Program (EIP)**

**2008 Baseline:** There exist many credible “stories” of savings in time, materials, energy usage, and other resources, but there is little science to them. While valuable in establishing a basic decision to adopt buildingSMART principles, they are not detailed or articulate enough to identify where specific decisions can be made to develop a credible approach to implementing BIM.

**2020 Vision:** A cost model is in place with sufficient detail to use as a metric for an organization to target and then achieve a goal in a specific activity area of the construction and facility-related industries. A solid predictable return on investment is available as a metric.

**2008 Goal:** Develop a high-level cost model identifying non-value added effort (waste) by phase indicating activities as currently accomplished and benefits attributed to buildingSMART related transformation.

**Representative Projects:**

- 2008-EIP-01 Cost Model / ROI

**Quality of Life Program (QLP)**

**2008 Baseline:** Currently, the work of the regulatory community and standards development organizations is in the process of refining standards to address the introduction of new innovative building products. The work of organizations such as the Multi-Hazard Mitigation Council and the Building Seismic Safety Council is vitally important to assuring the latest in engineering technology and material usage is being applied in the built environment. Construction safety needs more of a focus.

**2020 Vision:** The work of the Alliance and the regulatory community should be completed in a manner to streamline the application of standards, expedite the process of review and acceptance of design and construction documents, and simplify the regulatory review process in the field and the final acceptance of buildings and structures. Construction safety is improved due to safer building practices and sites.

**2008 Goal:** To assure the work of the buildingSMART alliance are accepted by the regulatory community, more work is required to inform the code administration personnel of the advancements taking place in the work of the Alliance. This will include the presentation of programs at code forums or other venues to assure the developers of codes and standards as kept informed of the progress being made. Identify construction safety goals and metrics.

**Representative Projects:**

2008-QLP-01 SMARTCodes™

**Research & Development Program (RDP)**

**2008 Baseline:** Research is being performed every day in colleges and universities around the world. The capacity and interest level for colleges and universities to provide meaningful research to the entire facilities industry is without peer. The difficulty is trying to offer some level of coordination to this collection of autonomous entities. This program will work to identify where research and development are taking place and foster communication between groups by providing a compendium of projects.

**2020 Vision:** Availability of a self-sustaining method of finding out about past, present and future research relating to the facilities industry. Not only a place where an Alliance member would be able to go to solicit research, but also a place where we could go to find out what research had been done or is currently being done on whatever topic we are interested in, including the results of the research, who are the experts, etc.

**2008 Goal:** Closely track existing R&D projects and set up an environment to identify R&D projects that are taking place in the industry in colleges and universities as well as in other organizations.

**Representative Projects:**

- 2008-RDP-01 Pankow Architectural Precast
- 2008-RDP-02 Pankow BIM – Execution Planning
- 2008-RDP-03 Pankow Structural
- 2008-RDP-04 University Research & Development Compendium
- 2008-RDP-05 GIS - BIM ifc Based Information Exchange

**Real Property Program (RPP)**

**2008 Baseline:** Real property professionals use desktop technology to print and transcribe hard copy specifications, reports and plans that they hand off to the next person in the supply chain who often then must manually re-enter the desired information. Where systems can be integrated, these are typically one-off custom projects that are relatively expensive and take quite a bit of time to complete and test before being put into production. Real property commerce and real property management/operations systems, when automated, operate separately from Geospatial Information Systems and Building Information Modeling systems. This is a serious limitation for real property commerce, planning and management activities, design and construction, and safety/emergency response.

**2020 Vision:** Individual advancements by standards organizations focusing on the domains of real property commerce and operations, geospatial representation and analysis, and building information modeling are now integrated with new capabilities having been incorporated into software and demonstrable benefits are apparent to end-users. Each member of this holistic ecosystem understands its relationship to the others and, while working to optimize its own functioning, is leveraging the opportunities that come from collaboration and interoperability.

**2008 Goal:** Develop links between the communities and coordinate various projects in the industry to encourage harmonization of business process and information interoperability.

**Representative Projects:**

- 2008-RPP-01 Commercial Real Estate Listing & Conveyance Automation
- 2008-RPP-02 Residential Real Estate Listing and Conveyance Automation
- 2008-RPP-03 A Unique & Persistent Real Property Identifier
- 2008-RPP-04 Enhancements to Classifications for Real Estate, Building and Geospatial Objects.
- 2008-RPP-05 Standardization of Building Spatial Validation Models
- 2008-RPP-06 Standardization of Design and Construction, Building and Building Equipment Information Handoff to Facility operations.

**Standards & Technology Program**

**2008 Baseline:** There is significant work going on worldwide in this program area. There is an effort underway to more closely link these efforts with the business reason for accomplishing them. The projects in this program remain the foundation of all other work as they are at the core of achieving the ultimate goal of industry wide interoperability.

**2020 Vision:** The foundational technology has become standardized and has gained maturity and acceptance throughout the industry, enabling significant advancements that were not possible when fragmentation in the industry was the norm.

**2008 Goal:** Deliver NBIMS Version 1, Part 2 and coordinate buildingSMART international and local chapter responsibilities. Coordinate the interface between the public and Alliance standardization programs. Have NBIM Standard new and update specification work well defined and well underway for continued delivery. Resolve currently defined harmonization projects so that projects with dependencies related to harmonization can move forward. Coordinate through NBIMS and buildingSMART International to deliver a standardized program of

procedures that projects wishing to achieve interoperability through use of the IFC objects and neutral model, IFD elements, IDM procedures, MVD coordination.

**Representative Projects:**

- 2008-STP-01 AECOO Testbed
- 2008-STP-02 High Performance Buildings
- 2008-STP-03 Industry Foundation Class (ifc) Development
- 2008-STP-04 Information Requirements, Model View, Data Validation (IMV) Framework Development
- 2008-STP-05 Information Delivery Manual (IDM)
- 2008-STP-06 International Framework Dictionary (IFD Library) Development
- 2008-STP-07 Facilitation of ISO 15926 / ISO/PAS 16739 Harmonization
- 2008-STP-08 Model View Definition (MVD) Development
- 2008-STP-09 National BIM Standard, Version 1, Part 2
- 2008-STP-10 National CAD Standard, Version 5
- 2008-STP-11 OmniClass™ Modifications
- 2008-STP-12 UNIFORMAT™ Consolidation
- 2008-STP-13 GSA Spatial Program Validation IDM/MVD into NBIM Standard.

**Visualization, Simulation and Analysis Program (VSA)**

**2008 Baseline:** Visualization, simulation, and analysis have some demonstrated successes, but those remain the exception and not the rule. There is still significant re-entry of information because programs do not interface well. Use of Industry Foundation Class (IFC) for interoperable exchange have been demonstrated in exercises such as the BIMStorm™ activity organized by Onuma, Inc. among programming, conceptual design, energy analysis and code checking applications. However, these are still not widely understood or accepted, and additional work by software developers is needed to improve implementation consistency and reliability.

**2020 Vision:** Information interoperability is well developed, understood, and accepted so that support for collaborative processes using interoperable software is the expected norm throughout the capital facilities industry.

**2008 Goal:** Identify specific opportunities for simulation and operational validation of simulation by bridging the design and construction modeling communities with the systems automation and operation communities such as the Open Building Information Exchange (OBIX) and the Machinery Information Management Open Systems Alliance (MIMOSA) communities.

**Representative Projects:**

See 2008-BRP-002 – BIMStorm™

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