

TEST YOUR BIM KNOWLEDGE

BIM QUIZ

Circle the correct answer.

Question 1:

What are the two most notable organizations that took the lead in the development of the BEP around 2007?

- Bentley and Autodesk
- GraphiSoft and Trimble
- Penn State and Autodesk
- Stanford and US National Building Standard

Question 2:

What type of specification is one of the most critical aspect that a modeler must understand when creating a BIM model?

- Unicode or Unifomat
- COBie UK 2012
- Level of Development (LOD)
- BS 1192:2007

Question 3:

As best practice, information exchange plans should begin with what information in mind?

- Design Information
- Export Information
- Consultant Information
- Contact Information

BIMMATCH

Draw a line in column B that connect Column A with the correct definition in column C.

Column A	Column B	Column C
4D		The dimension that integrates various aspects to the model such as operation, management, sustainability, safety, energy, lighting, etc.
Industry Foundation Class (IFC)		The addition of "time" (scheduling) into the model to simulate construction schedules.
xD		This was developed and maintained by building-SMART International as its "Data standard".

Check out the next issue for the correct answers.



Upload a picture of your completed word list on our Facebook page for a chance to win an awesome TBF t-shirt!

BIMWORD SEARCH

Words can be found horizontally and vertically only.

- TBF
- IFC
- Elements
- Integration
- Model
- Revit
- BCF
- Matrix
- BEP
- PAP
- MEM
- ArchiCAD
- Navisworks
- Collaboration
- Specification
- Information
- Production
- Data
- Federated
- IPD
- LOD
- Tonic
- End
- Process
- People
- Technology

BIM & TONIC

THE BIM FACTORY QUARTERLY NEWSLETTER

ISSUE 3 | 2016

BIM STARTS AT THE END!

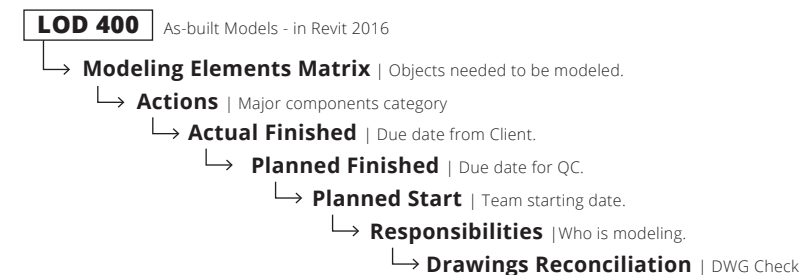
Han Hoang | CEO



This is one of my favorite answers when someone ask me what BIM is. Because it is an idea that I believe truly represents the reality of BIM and VDC. This sentence is so meaningful that it has become our company's primary slogan. To us, nothing is more important for BIM than its objectives and goals. Whatever the purposes are for the uses of BIM, the goal is always to achieve it in the most optimal way possible. In order to do so, BIM practitioners must focus on the end in order to work backwards to the beginning with every steps and procedures mapped out.

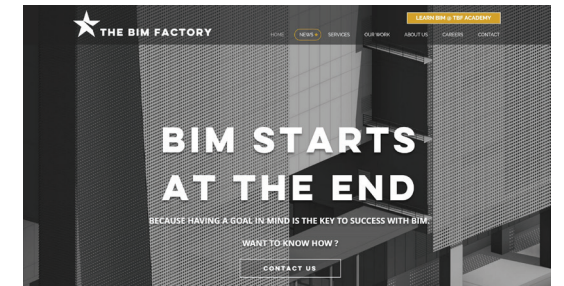
Whenever we start a project, we start with a goal and an action plan. We look at the entire process and understand exactly the objectives of our scope. Then we create a Project Action Plan (PAP) that describes the entire process from beginning to end. We can only achieve this if we look at the end product and visualize the steps of how to create it. Whether it's a simple modeling project or a training exercise, we always approach the process the same way.

Here is a sample layout of our Action Plan process for a modeling in BIM project. This particular project was done with Revit and the goal of this modeling is LOD 400. We call this the Revit Action Plan (RAP).



Whether it's a small and quick modeling project or a long-term planning process, remember that BIM should always start at the very end.

TBF WEBSITE 3.0



NEW AND IMPROVED

On April 2016, our marketing team excitingly re-vamped our company website called TBF 3.0 with a brand new look. We were able to organize the many unique services into three distinctive categories (**BIM PRODUCTION, BIM CONSULTANCY, and DESIGN CONSULTANCY**) along with new sections focused on **Visualization, TBF Academy** and our favorite, **TBF Technology**. These sections not only described our new intended focus on providing the best visual products for our clients, but we are putting our efforts on providing one of the most effective modeling in BIM training program on the market today. Along with our new division on technologies which is dedicated to research and development of the newest advancements and applications for BIM, VDC and the entire AEC industry. You can read more about these topics and many other features in this issue of our newsletter. In the mean time, enjoy our new website and please do let us know if there are anything else that we can do to improve it for you.

FROM OUR COO

Thank you for reading our third edition of the TBF quarterly newsletter. This particular edition is very special because it represents a fresh new look at our corporate brand and an updated approach to our unique identity. I truly believe that we are different from the rest simply because of the unique people who are a part of this company. Although in the last few months, we had many of our team members departed to greener pastures and to find better personal as well as professional opportunities to grow, however, they will always be a part of who we are, our special identity and a member of our TBF family.

Maryline VO | COO

info@the-bim-factory.com
www.the-bim-factory.com

THE BIM FACTORY

3B Nguyen Ba Lan
Thao Dien Ward, District 2
Ho Chi Minh City, Vietnam
+84 8 3519 0091

ARCHICAD 20

THE MOST COMPREHENSIVE ARCHITECTURAL BIM APPLICATION ON THE MARKET.

WITH A FRESH NEW UI AND MANY NEW ADVANCED FEATURES, ARCHICAD IS THE MOST POWERFUL BIM TOOL FOR ARCHITECTS WHO WISH TO ADOPT AND MAXIMIZE BIM IN THE MOST SIMPLEST WAY POSSIBLE.

In June 2016, THE BIM FACTORY became the primary training and technical support center for GRAPHISOFT in Vietnam. With a team dedicated to support only our ARCHICAD clients, TBF Technology can help architects who want to transition over to BIM the most cost effective and efficient way possible. TBF provides hand-ons and hand-holding support as well as a 24/7 hotline - for the dedicated architects who often work on a nightly basis. In addition to technical support, TBF Technology provides ARCHICAD clients training on the BIM process as well as modeling strategies. Many BIM modelers who are very technologically capable lack the basic knowledge of how to set up useful and effective BIM models. TBF has many experiences of building a variety of BIM models from many types of disciplines and scales for many BIM purposes which has tremendous benefits for our clients. Email us at info@the-bim-factory.com for more information on how we can help you achieve optimal results with ARCHICAD 20.

ARCHICAD 20 features a number of important functional improvements that put the emphasis on the "I" in BIM, increasing the value for both ARCHICAD users and external stakeholders alike. Its brand new, "flat-design" graphical UI sets the new version apart from run-of-the-mill BIM tools.

What's new in ARCHICAD 20 Enhanced Information Management

Store the Information: Information is the most valuable part of BIM and ARCHICAD 20 helps architects and designers get the most of it! ARCHICAD 20 allows users to utilize their Building Information Model as the central storage place for all related information. They can even easily store and maintain design information that was not created using CAD or BIM tools, like Excel spreadsheets.

Display the Information: ARCHICAD 20 leverages well-structured information resulting in informative design visualization, which ensures enormous efficiencies throughout design and construction. With the help of smart filters and brand new graphical override, designers can freely change the representation of any 2D and 3D views of elements with similar properties. This feature allows a number of workflows that make communication, coordination and model checking much more efficient.

Share the Information: ARCHICAD 20 is among the first BIM applications to fully support the IFC 4 open-source standard. IFC 4 supports new coordination workflows (Design Transfer View and Reference View) and provides great help when coordinating with other disciplines. Information sharing via purpose-made tools such as BIMx or generic tools such as Excel enables a much wider target group to get involved and use the wealth of information stored in BIM.

Graphical Favorites: Brand new Graphical Favorites provide excellent visual feedback about saved element settings with automatically-generated, colored 2D or 3D thumbnail previews -- available instantly for every Tool. This not only helps BIM managers in setting up and enforcing office project templates, but also speeds up everyday design development work.

Resource: http://www.graphisoft.com/info/news/press_releases/archicad-20-a-fresh-look-at-bim.html

TBF PROJECT HIGHLIGHTS

BIM PROCESS AND MODELING TRAINING

Client: **ELENBERG FRASER | VIETNAM**
 Scope: BIM Training and Modeling Support
 Duration: 10 weeks and 20 weeks

Using our vast experiences in the process of BIM and modeling strategies, we were able to support our client Elenberg Fraser Vietnam (EVF) to train the upper management team the true meaning of BIM and its sophisticated processes. During the 10-week training period, we shared information from the creation of the BIM Execution Plan to the breakdown of the modeling components. We are currently in the process of preparing the company-wide implementation plan for their Australian Office.



BIM Process training by TBF's Trang Nguyen | BIM Manager at Elenberg Fraser office.

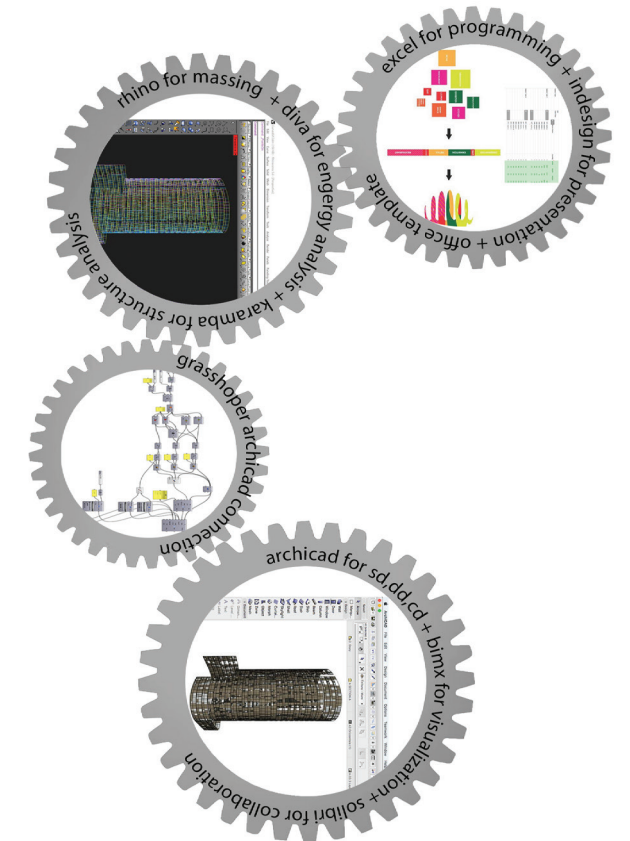
BIM TECHNOLOGY

ACCELERATING THE PROGRESS OF BIM | VDC

TBF Technology is a new division of THE BIM FACTORY that focuses on the trends and technology through research and development that will have major impacts on BIM | VDC in the near or immediate future. We have a dedicated division of process and system engineers who look to transform the way at which we can design, analyze, and construct the built environments.

Visit our website [www.the-bim-factory.com/TBF Technology](http://www.the-bim-factory.com/TBF%20Technology) for more information and details. Some of the primary topics which TBF Technology focuses on are:

- CREATIVE PROCESSING FOR ARCHITECTS
- 3D LASER SCANNING
- SIMPLE BIM COLLABORATION TOOL
- PREFABRICATION AND MODULARIZATION
- BUILDING INFORMATION MANUFACTURING
- AUTOMATED BUILDING ASSEMBLY TECHNOLOGY



TBF's "Creative Processing for Architects". Graphics by Duy Le.

BIMACRONYMS

The most commonly used BIM terminologies in our industry.

Here are the top 5 BIM acronyms that are most commonly used definitions in our industry today.

MIDP | "Master Information Delivery Plan": This is a set of document that's developed from the BIM Execution Plan, setting out the deliverables, their format, durations and the responsible parties. Below this MIDP sit various Task Information Delivery Plans (TIDPs) which all feed into the master document.

LOI | "Level of Information": Refers to the amount of non-graphical data within an information model at a given stage. It might be formed of specifications, schedules, sheets, annotations, or other 2D documentation.

LOD | "Level of Detail": Refers to the amount of graphical or 3D data within an information model at any given point in a project. Collectively, Levels of Detail, Levels of Development, and Levels of Information are terms under the "Levels of Definition".

Let us know by emailing us at info@the-bim-factory.com of any other acronyms you want to discover and define for our next issue.

CDE | "Common Data Environment": Refers to a shared digital space online that everyone on the project team has access to for a specific BIM project. This file management sharing system can be a server, an extranet or a cloud based system. Currently the most common CDE used in Vietnam is via VPN. You can find out more about CDEs in "What is a Common Data Environment?" <http://www.theb1m.com/video/what-is-a-common-data-environment>

PIM - AIM | "Project Information Model" - "Asset Information Model": During the BIM process, project teams create information models in their common data environment - CDE - using both graphical and non-graphical data, clearly structured and accurately linked together. That data increases as the project stages progress until handover to the asset's owner or end-user. This particular information model is called a "Project Information Model" or PIM during the project delivery phase, and an "Asset Information Model" or AIM refers to the same information model which includes product data once a project is handed over and complete.

HAPPENINGS

@TBF

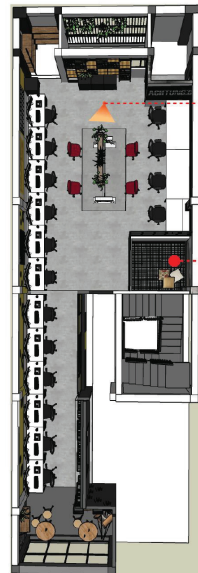
This section is dedicated to all the happenings and on-going activities at our factory.



CONTINUATION OF OFFICE UPGRADE AND RENOVATION

Since moving into our new space in November, we have not stop renovating our space. We understand the importance of having a comfortable space to work in and be a part of, therefore, we held a competition amongst the teams to see what type of space each team member would like to have.

After weeks of competition and conversing among ourselves, we finally decided on the renovation style and went at it. Come and check it out for yourself and give us your advice. We think you will like our new look.



OUR OFFICE WORKING SPACE + HAPPY VALLEY

THE BIM FACTORY

USING REVIT FOR ARCHITECTURAL GRADUATION PROJECT

Our very own Revit expert and BIM Modeling leader - **Ms. Tuyen Dinh** - held 2 separate sessions in the month of May to train and support graduating architecture students from the Ho Chi Minh University of Architecture on how to use the latest version of Revit for their final graduation projects. Tuyen - a well-known local Revit blogger in Vietnam - conducted these sessions out of the goodness of her heart as well as wanting to share her talent and knowledge to the rest of the young community. The primary purpose of these sessions was to share with the students the many tips and techniques in order to maximize the functions in Revit to give the students the edge as well as to support the completion of the project on time.



Revit Session for students at TBF - by Tuyen Dinh | BIM Modeler II.

JOIN THE TBF FAMILY

DO YOU WANT TO LEARN ABOUT BIM AND BE THE LEADER OF THE BIM | VDC INDUSTRY IN VIETNAM ?

BIM MODELER | BIM COORDINATOR | IT | SALES & MARKETING

WE ARE HIRING !!

SEND YOUR CV TO: info@the-bim-factory.com



WHAT IS **OPEN** BIM™ ?

and Why Should You Care ?

A BREAKDOWN ON OPEN BUILDING INFORMATION MODELING AND ITS IMPORTANCE

OPEN BIM is a universal approach to the collaborative design, realization, and operation of buildings based on open standards and workflows. OPEN BIM is an initiative of several leading software vendors using the open buildingSMART Data Model.

The goal of the OPEN BIM movement:

The only goal of the OPEN BIM movement is to promote open collaboration workflows for better-coordinated projects between project teams and all stakeholders. This goal can only be achieved through a globally common approach, publicly achievable OPEN BIM branding supported with clear project definitions, specific requirements and best practices to help implementation.

The characteristics of the "open" approach:

The other prominent approach to model based collaboration promotes open collaboration workflows where complex company and project structures are fully appreciated.

This approach elevates the conversation from the data level to the workflow level making data what it is: a medium or vehicle of high-level information.

With this approach, project participants can be selected based upon their professional expertise and not a particular software being used.

Why is it important ?

1. OPEN BIM supports a transparent, open workflow, allowing project members to participate regardless of the software tools they use.
2. OPEN BIM creates a common language for widely referenced processes, allowing industry and government to procure projects with transparent commercial engagement, comparable service evaluation and assured data quality.
3. OPEN BIM provides enduring project data for use throughout the asset life-cycle, avoiding multiple input of the same data and consequential errors.
4. Small and large (platform) software vendors can participate and compete on system independent, 'best of breed' solutions.
5. OPEN BIM energizes the online product supply side with more exact user demand searches and delivers the product data directly into the BIM.

— **System independence:** Coming from its name, open workflows provide the different trades with the option to join with the best tools for their own purpose without losing the benefits of model-based collaboration.

— **Integrity and ownership of BIM project data:** Different trades in the real world are required to maintain ownership and responsibility for their own design data. With open collaboration workflows, this is fully provided as parallel data structures are being developed and coordinated.

— **Workflow transparency:** Open collaboration requires the workflow compatibility achieved through transparent protocols and interpretation of data to provide an open interface to any solution that decides to connect

Source: http://www.graphisoft.com/archicad/open_bim/



LEARN **BIM**
TBF ACADEMY

BIM Collaboration Format | **BCF**

BIM Collaboration Format (BCF) is an open file format based on XML that allows the addition of comments to an Industry Foundation Classes BIM model (IFC is a neutral, non-proprietary data format used for sharing and exchanging BIM data across different software applications). The BIM Collaboration Format is intended to *simplify collaboration between different parties working on a model by allowing them to raise issues, provide answers and make comments within an open file format that does not itself contain model elements*. That is, it provides a communication capability that is separated from the model itself. Issues and comments, which can be enriched by screen-shots, are linked to model elements using Global Unique IDs (GUIDs). Many commonly used BIM software packages include BCF capability.

THE FAB FACTORY

NEXT GENERATION LOW-COST BUILDING METHODOLOGIES

WE USE THE INTEGRATED PROCESS TO SIMPLIFY THE DESIGN, CONSTRUCTION AND MANUFACTURING TECHNOLOGY.

We at THE BIM FACTORY believe that everyone deserve a well-designed habitable space. Therefore, we have developed a separate division dedicated to achieving this goal. We call this THE FAB FACTORY and we are working on integrating all the mechanism of development, design, construction, manufacturing, and operation into a cohesive streamlined process that reduces the overall cost of housing development. Because we are actual providers, users and operators who understand the benefits of BIM, we envisioned that it is this integrated process which will make the pre-fabrication and modular technology the most cost effective process for our industry.

WE ARE DEDICATED TO PROVIDE LOW-COST BUILDING METHODOLOGIES TO THE MASS MARKET.

Currently, the housing development market in Vietnam are geared towards the high-income population while neglecting an estimated 52 million individuals who are living in sub-standard conditions. We intend to change all of that and revolutionize the housing market in Vietnam and make housing truly affordable to everyone.

We are a group of industry professionals with the sole purpose of finding the most effective strategies to reduce the cost of design, construction, and operation to the world's housing and construction market. Our main areas of focus are:

- > **Design Methodologies**
- > **Material Technologies**
- > **Fabrication Processes**
- > **Manufacturing Capabilities**
- > **Assembly Strategies**

We believe with the advent of BIM, VDC, IPD and the integrated pre-fabricated process, truly affordable housing will finally become a reality and THE FAB FACTORY will make sure of it. For more information, please check out our website at www.the-fab-factory.com.



Han Hoang | CEO | THE BIM FACTORY

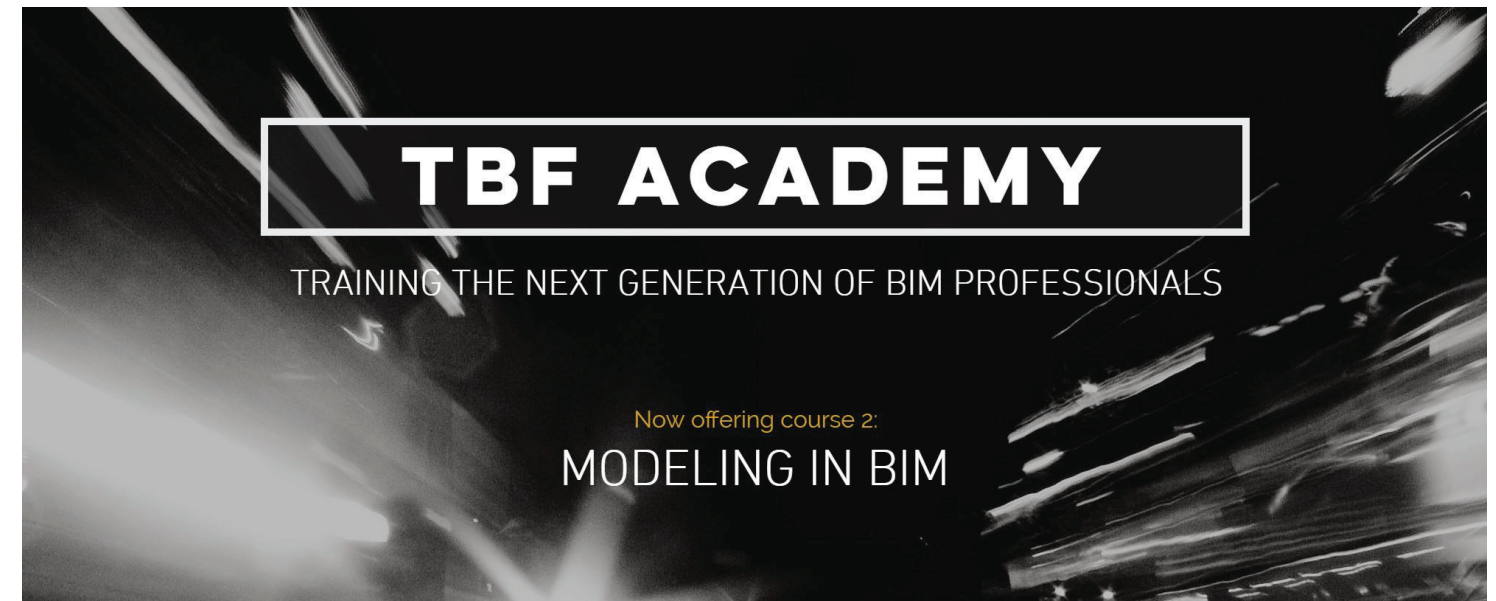
In May, 2016, I took an attempt at writing out my thoughts on Medium - an online blogging platform - by creating a 5-part article which I discussed about the potentials of creating a feasible low-cost housing market in Vietnam. My focuses in the articles shaped around the many unique strategies and processes on how to make housing truly affordable for every individual in Vietnam and eventually the rest of the world. These articles became the basis and foundations which we used to create what is now known as THE FAB FACTORY.

Here is an excerpt from the article:

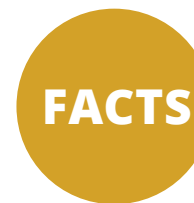
The intent of writing this article is for me to share, identify and discover solutions to enable the development of truly low-cost housing, specifically for Vietnam. Being a native Vietnamese, I've reach that point in my professional and personal life that I finally know what I want to accomplish with the rest of my life.

Collectively and realistically, with the emergence of new technologies and processes that I work with everyday for the building industry which integrate and streamline design, construction and manufacturing processes, making potentials — of reducing overall costs and allowing for social-conscious developers to build cost-effectively — to become realities.

You can read the rest of the first two parts of this 5-part series on Medium here [<https://medium.com/@hanmhoang>]. Be sure to follow me and be the first to read the last 3 parts which will be published soon.



Log on to www.the-bim-factory.com > TBF Academy for more information and register for our next available "Modeling in BIM" course now.



At first glance, the BIM process may seem to offer infinite opportunities for the entire Architectural, Engineering and Construction industry. But there are some serious drawbacks and the most critical is the lack of true BIM practitioners. Universities still have yet to incorporate major BIM topics into their primary curriculum. Majority of the BIM learning at this time is through self-education. This can be a major dilemma since self-learning can lead to many learning the wrong things. We always encourage everyone to learn as much as you can on your own time, but if you are serious about the business of BIM, you should find local certified training or education programs with a track record of providing real BIM solutions in order to foster your professional growth.

IN THE community

COMPANY FOCUS

Over the past 3 years, we have learned a lot of lessons about our business, some were good and some were very hard to swallow. However, it is the tough lessons that we actually appreciated the most. From these hard times, we are able to test ourselves and see our durabilities. And if we are still standing at the end of it, we automatically grow stronger and realize the limitations of our strenghts.

Training is certainly an important part of our work and we now realized that a lot of training will be needed for everyone at every position in our company - not just for the newcomers. Another important lesson learned is the continuation development of our unique company culture. When we started, culture was our number one priority. Along the way, we lost this focus - due to many reasons - but now, we have decided to put our attention back to re-establish our company culture that is ideal for everyone. Because it's our culture which makes us unique.

With that, we will need everyone's support and efforts to make sure our culture remain strong and will sustain for years to come.

OUR BUSINESS

Since the beginning of 2016, THE BIM FACTORY's unique variety of services were re-focused and re-organized into three distinctive categories - BIM PRODUCTION, BIM CONSULTANCY, and DESIGN CONSULTANCY.

BIM PRODUCTION

Our BIM Production is our core service. We provide comprehensive modeling and documentations packages.

BIM CONSULTANCY

Our BIM Consultancy services ranges from project-based or company-based tailored for those whow are looking to adopt BIM.

DESIGN CONSULTANCY

We utilize 100% of the BIM process in our design and engineering work. We are afterall a BIM copany, therefore, we start and end with BIM.

Most importantly, we've create our services to fit our client's needs. We work directly with the client's project team to create specific goals and action plans for different workflows that are effective, efficient, and productive.