True North Enterprise Calibration: A New Model for Sustainable Business and Digital Transformation

CIMdata Commentary

Key takeaways:

- *Most transformation programs fail to deliver to promise due to limited understanding of what really needs to change.*
- *Without taking a holistic view, true and sustainable transformation is impossible.*
- *Sustainable transformation requires investment in process change, system deployment, and organizational adjustment.*
- *Sustainable transformation results in repeatable product and process innovation, which maximizes an organization's return on investment.*
- *Customer satisfaction in today's rapidly changing economy requires sustainable transformation.*
- *Executing True North Enterprise Calibration™ can enable sustainable transformation.*

Today's business journals and business school literature are filled with articles about transformation initiatives of different types. Most are talking about digital transformation—the use of new, fast, and frequently changing digital technology to solve business problems.[1] At a time when many still wonder whether digital transformation is real or just the latest buzzword, many industrial companies are taking the promise of digital transformation very seriously. They often view it as the next big thing, which leverages solutions addressing SMAC (i.e., social, mobile, analytics, and cloud) and IoT (i.e., Internet of Things) supporting technologies and trends that can help companies fundamentally transform their businesses—the way they operate, as well as what and how they sell. Unfortunately, most companies are failing to address the four fundamental aspects of their business—their people, processes, systems, and data interoperability—in a holistic and sustainable manner. All of these aspects must be focused on creating and using the organization's intellectual assets.[2]

For some companies, transformation means survival. For others, it means transforming their products from physical goods and tangible services to less tangible items, like data—in many cases data is becoming the "product." In fact, the rate at which products and services are being bought and installed for the data they generate or collect is increasing. This need for transformation isn't new. Transformation or, more simply put, change has always been required to stay competitive or to stay relevant. Those that don't change generally die quickly or face a painful process as they spiral down to the point of irrelevance. While it is clear to many within the product lifecycle management (PLM) community that an organization's intellectual assets are foundational to a meaningful and sustainable business transformation strategy, unfortunately this truth is not understood by senior leadership within many companies. It continues to surprise CIMdata that even after many years of discussing this topic most companies don't appear to understand that their products and services are a result of their process and product-related intellectual assets, without which the company doesn't exist. Why is this the case? What are so many companies missing?

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[1] https://en.wikipedia.org/wiki/Digital_transformation

Not Able to See the Big Picture

For the most part, this is because either management doesn't understand that true sustainable transformation will only result when end-to-end business optimization is considered and then achieved, or they understand this but don't have the authority to execute in the holistic manner necessary to achieve the desired result. This problem clearly rests at the feet of old and outdated management techniques. At the core of this problem is business' overreliance on departmental structures, processes, roles and responsibilities, metrics, and execution—all of which point to organizational sub-optimization. This traditional approach to business structures and execution, historically taught in most business schools, dates back to the introduction of modern business operational theory. Unfortunately, this has not changed very much. For many decades this approach was the best way to structure and execute business operations. Fundamentally, this approach is based on the division of labor (which one could argue goes back to the organizational structure of the Roman legions), which in itself, isn't bad, but it does make it difficult to optimize across an organization's various teams and departments. Fortunately, the availability of data, modern information technologies, analytics, and augmented intelligence, among other things provide a typical company with innovative opportunities never feasible in the past. In other words, the optimization achievable today far outreaches what was available yesterday, if a company is willing to break out of the traditional modes of operation.

The sub-optimized results occur due to the lack of control or understanding that end-to-end business optimization is required (i.e., the full consideration and optimization across an enterprise's people, processes, systems, and data aspects). This problem is often made worse because many organizations don't manage their data as if it is a critical business asset. As previously mentioned, everything a company does is based on its data. If a company's data set (i.e., the data used to manage the business, produce products, provide services, etc.) is incomplete and/or inaccurate, the company is usually inefficient and non-competitive, and its resulting products and services aren't as good as they could or should be. To get past this, companies need to place their data as high on the list of value as their other important assets, namely their people and finances. This is another topic that needs to be stressed in today's business schools so that tomorrow's managers and business leaders place the appropriate level of emphasis on the organization's data and its associated management tools and processes.

Other Typical Points of Failure

Like other major business transformational initiatives that truly seek to change the business, digital transformation can also fail due to poor planning, lack of governance, and lack of focus. For example, lack of program oversight, due to no executive steering committee or executive sponsor, often dooms a business transformation program. The inability of the overall governance structure to manage the project's complexity is another sign that a program is doomed. So are poor coordination, over-complexity (e.g., attempting to do too much too fast), lack of critical budget availability, thinking that technology will make it all work, and/or underdeveloped plans that are continually changing or not clear. Other causes of failure include not having the appropriate supporting technologies in place to enable the new way of working and not defining metrics that help measure continuous improvement. The sad truth is that these will not lead to true transformation. At best a company can enjoy a brief respite, but not the sustainable transformation they seek. This begs the question—what is sustainable transformation and how can one achieve it?

Sustainable Transformation

Sustainable transformation changes the business in a manner that increases product and process innovation, as well as maximizes its return on investment (ROI)—providing phased digestible change and associated incremental value. Furthermore, sustainable transformation institutionalizes and embeds the change into the business's processes and culture (i.e., into how the business operates).

For a company to successfully transform, the transformation initiative has to be core to the business. This is because true, sustainable transformation cuts across all departments and often includes development partners, suppliers, and customers. It can't be viewed or managed as an information technology (IT) program. The company's transformation strategy needs to be built on a solid foundation of business justification, as well as a set of strategy elements designed to evolve as the business evolves. Additionally, the business needs to think of the transformation as being like performing open heart surgery on a person while they run a marathon. These transformations are complex undertakings that must be accomplished as the business continues to run and deliver its products and/or services to the market. So, the business must strive to keep the complex simple—making changes in structured and manageable ways. Other things to remember are that sustainable transformation:

- Isn't something a company implements overnight. As a result, what the business defines today may not be appropriate tomorrow. This means that flexibility and configurability are critical.
- Requires a company's transformation strategy and associated roadmap and support to be robust and holistic. "Rome wasn't built in a day" ... transformation is a journey.
- Must support the evolving nature of a typical enterprise and how the transformation strategies should be defined and implemented in a way that naturally addresses change. Change happens; you might as well embrace it.

Ultimately, if it is worth doing, then it is worth doing right the first time. This means the only good transformation is one that is sustainable. If sustainability is the goal then what are the critical success factors?

Critical Success Factors

A 2018 *London Times* special insert discussing digital transformation included a collection of transformational journey-related learnings, issues, and challenges faced by companies who have attempted major transformations.[3] These learnings included:

- *Transformation must be ongoing and central*. Business transformation isn't a part time job. To be successful, the entire company must be involved.
- *Transformation can't harm the employees*. A company's employees are the most important assets a company will ever have. They must be part of the journey and see value in taking the journey.
- *There is No Choice*. Transform or die should be a company's focus. As the quality guru W. Edwards Deming stated: "*It is not necessary to change. Survival is not mandatory.*"

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[3] Digital Transformation. Raconteur. *London Times*. 26 September 2018.

- *A transformational culture must be cultivated*. This new culture must accept and embrace change. Changing a company's cultural takes time and effort, but without the right culture changes the transformation is unlikely to be sustainable.
- *Innovation must be fostered*. Innovation is critical, in part because it establishes and maintains a company's competitive position. It can provide product and company differentiation, while improving customer satisfaction and retention.
- *New skills must be developed*. Transformation requires change. That includes defining and learning new skills.
- *Leaders need to improve*. One must remember that sustainable change has no end. It must permeate the business—from top to bottom—requiring management to improve.
- *The "people premium" must be unlocked*. Success ultimately relies on people, the core asset of the business. It is only through their transformation that the company will maximize the benefits of its transformation.

These learnings align well with CIMdata's more than 35 years of business transformation experience. However, there is one critical underlying learning missing from the list. *The best transformations follow a best practice approach* built to leverage the strengths of the company (i.e., that which has made it successful), as well holistically and incrementally addressing people, processes, and the supporting technologies that create and manage the organization's critical intellectual assets. The Institute for Process Excellence's (IpX) True North Enterprise Calibration is one such approach.

True North Enterprise Calibration

True North Enterprise Calibration describes IpX's best practice-based approach to sustainable business and digital transformation. IpX, which is perhaps best known for defining and delivering the CM2 methodology and associated certification, has added additional capabilities to CM2 to build a best practice-based approach that is designed to define and support sustainable business transformation. IpX's approach and associated service delivery model enables organizations to benchmark, assess, and transform today's and tomorrow's business challenges into successful elements of their business. According to IpX, these challenges provide innovative opportunities and incorporate the appropriate set of business process and enabling technology-based capabilities that are on the mind of a company's executives, such as Model-Based Design, Additive Manufacturing, Artificial Intelligence, Operational Excellence, and many others, into the way the business operates.

IpX's True North Enterprise Calibration model, as illustrated in Figure 1, includes the following eight main elements:

- *Ecosystems Assessment*—used to identify the strengths and opportunities associated with an organization's people, processes, systems, and data.
- *Training & Certification*—includes an extensive set of training and certifications, e.g., CM2, RISE, Model-Based Systems Engineering (MBSE), EIA-649, Document Control, Software Lifecycle, and Building Information Modeling (BIM).
- *Enterprise Roadmap*—a focused functional and phased approach designed to achieve value and sustainable transformation.
- *Business Engagement Strategy*—a comprehensive improvement strategy used to prioritize the most valuable elements of the transformation journey being considered.

- *Organizational Change Management*—the promotion, using IpX's RISE model (Retention through Inclusion, Service & Equity®), of a collaborative mindset and deployment methods for managing change.
- *Integrated Process Excellence*—a focus on process improvement that results in increased employee engagement, greater collaboration, accountability, and ownership.
- *Digital Transformation*—the IT enablement of an organization's product design and delivery capabilities.
- *Performance Monitoring*—setting clear objectives, concise indicators, and valid and measurable transformation plans that ensure success.
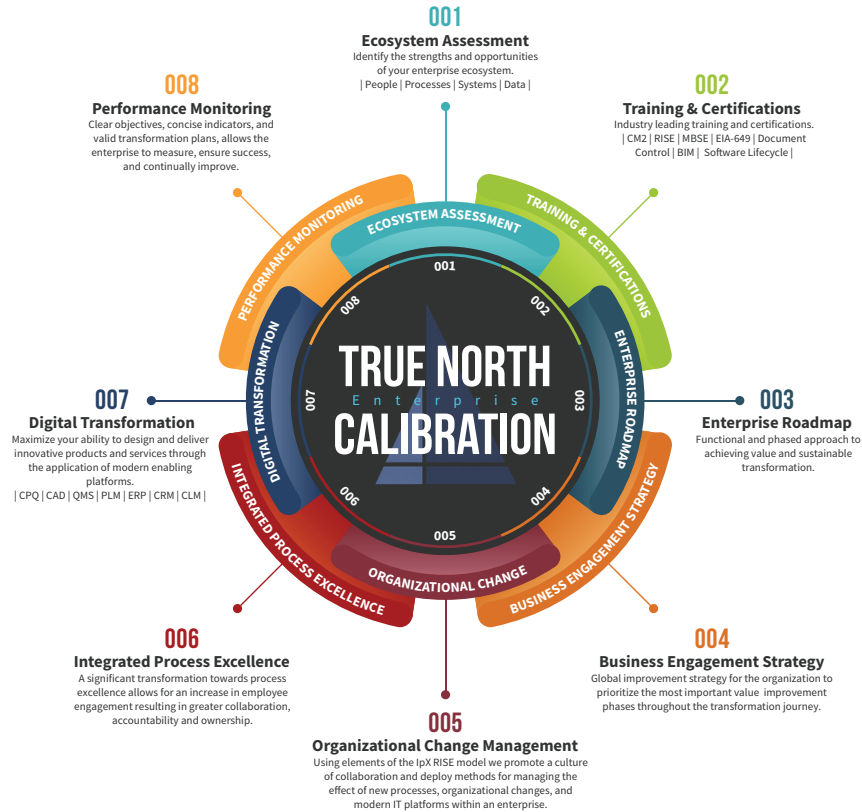
001
Ecosystem Assessment
Identify the strengths and opportunities of your enterprise ecosystem.
| People | Processes | Systems | Data |

008
Performance Monitoring
Clear objectives, concise indicators, and valid transformation plans, allows the enterprise to measure, ensure success, and continually improve.

002
Training & Certifications
Industry leading training and certifications.
| CM2 | RISE | MBSE | EIA-649 | Document Control | BIM | Software Lifecycle |

007
Digital Transformation
Maximize your ability to design and deliver innovative products and services through the application of modern enabling platforms.
| CPQ | CAD | QMS | PLM | ERP | CRM | CLM |

003
Enterprise Roadmap
Functional and phased approach to achieving value and sustainable transformation.

006
Integrated Process Excellence
A significant transformation towards process excellence allows for an increase in employee engagement resulting in greater collaboration, accountability and ownership.

004
Business Engagement Strategy
Global improvement strategy for the organization to prioritize the most important value improvement phases throughout the transformation journey.

005
Organizational Change Management
Using elements of the IpX RISE model we promote a culture of collaboration and deploy methods for managing the effect of new processes, organizational changes, and modern IT platforms within an enterprise.

Figure 1—True North Enterprise Calibration Model
(Courtesy of IpX)

IpX and its True North approach, which is underpinned by a CM2-based enterprise operating model and modern digital platforms, stresses that "…business processes and their enabling systems represent the major organizational activities and functions used to perform work and conduct business," and that clear, concise, and valid data is at the core of these processes and systems. IpX views an organization's data to be much more than a simple tool. According to IpX, it's the organization's DNA—the foundational building blocks that allows an organization to leverage its intellectual assets, optimize current product offerings, and conceptualize and deliver tomorrow's products. This view is very important because, as mentioned earlier, a company operates on its data. The better the data, the better the organization operates. Mr. Joseph Anderson, IpX's President, states that "…there will no longer be a difference between information and material because products will be dynamically linked to their application and supporting information." He goes on to say that "A corporations data is so much more than a simple tool, it's the organizations DNA." CIMdata couldn't agree more.

In a recent IpX article, IpX wrote:

> "Think of the Digital Thread as the digital connective tissue between enterprise disciplines and datasets akin to the building blocks of a DNA strand (see Figure 2). Individually they each tell part of the story from a different perspective and with a different focus. But connected together they become far more powerful. They build upon one another to create a product or project...a Digital Twin. Thus, allowing an organization to work initiatives and challenges tactically with a confidence that the scope of the change is understood not only at its current point in the lifecycle but with an understanding of downstream implications to ensure the decisions being made address the full lifecycle of the product."
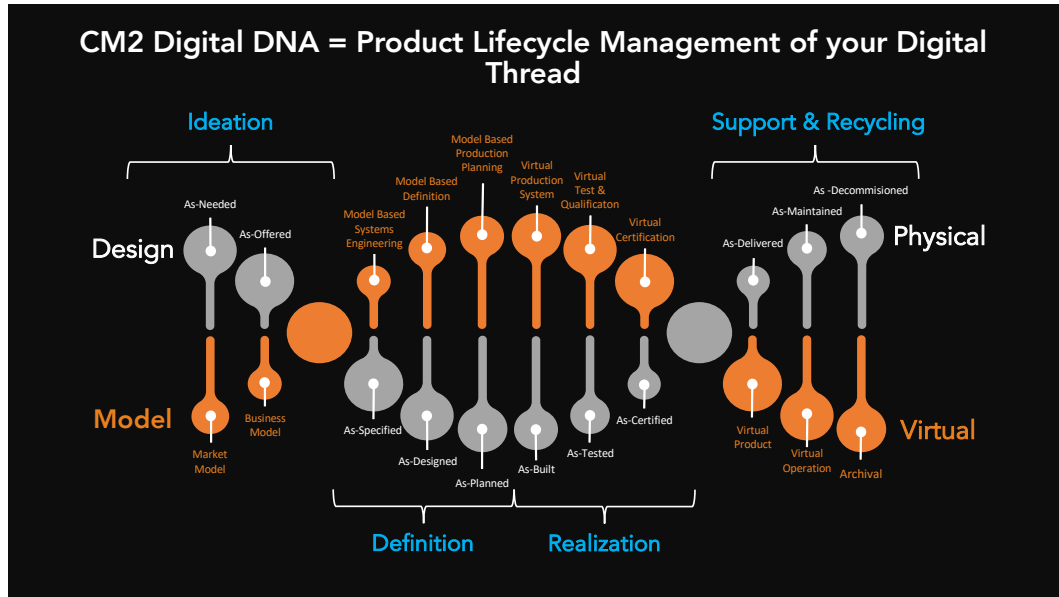

Figure 2—Enterprise Disciplines and Dataset DNA
(Courtesy of IpX)

CIMdata finds this to represent a compelling description of an organization's end-to-end lifecycle—from ideation, to definition, to realization, and finally to support and recovery. CIMdata finds it refreshing to see IpX talking about the complete end-to-end optimization of the lifecycle, something that CIMdata has been stressing for decades.

It is also refreshing that IpX believes that breakthrough business process improvement outcomes are achieved by holistically addressing the interoperability of an organization's people, processes, technologies, and data. Again, this is something that CIMdata has stressed for decades. Finally, CIMdata commends IpX for stating that "Technology enables process change, but desirable business improvement outcomes cannot be achieved without organizational changes. Ultimately, people must be inspired, empowered, and engaged." All core tenants of sustainable transformation described herein.

Concluding Remarks

While IpX is a relatively new organization (established in 2015), its roots go back more than 30 years to the founding of the Institute of Configuration Management and the then CMII (now CM2) best-practice. In a short period of time, IpX has been able to apply CM2 in the broad and deep manner it has always been designed to support, but they haven't stopped there. They have not only defined a robust and comprehensive business transformation model, they have

also added RISE and other key elements that define and ensure sustainable transformation. CIMdata is impressed and is very interested in watching IpX grow and build additional momentum behind what they are doing.

About CIMdata

CIMdata, an independent worldwide firm, provides strategic management consulting to maximize an enterprise's ability to design and deliver innovative products and services through the application of Product Lifecycle Management (PLM). CIMdata provides world-class knowledge, expertise, and best-practice methods on PLM. CIMdata also offers research, subscription services, publications, and education through international conferences. To learn more about CIMdata's services, visit our website at http://www.CIMdata.com or contact CIMdata at: 3909 Research Park Drive, Ann Arbor, MI 48108, USA. Tel: +1 734.668.9922. Fax: +1 734.668.1957; or at Oogststraat 20, 6004 CV Weert, The Netherlands. Tel: +31 (0) 495.533.666.