Most would agree that workplace culture is a critical factor in determining the level of success for an organization. Culture is what your customers experience when they interact or transact with your organization. Culture takes the notion of what you do and how you do it to a higher level – how your customer feels about you and the feelings they have when they use your products or services, or even when they hear or see your company’s name. At this level, culture truly becomes a competitive advantage.

However, ask people to define the word culture and you will likely get a variety of responses. Ask those you work with to describe your organization’s culture and you may observe some uncertainty and uneasiness in their response. Some say workplace culture is what happens when the manager leaves the room or what employees do when no one is looking. While we can differ on the best definition or description of culture, we should all accept a few realities. Culture is about people and their behavior. We cannot manage culture, but we can manage behaviors by encouraging and fostering the right behavior. Well-defined core values that are aligned to the vision and goals of the organization, understood by all and practiced routinely, are essential for business success.

According to Hubspot, companies with inspiring core values include American Express, Google, Coca Cola and Whole Foods. Typically, organizations address their core values when they develop or refine their strategic plans. Core values are an important part of an organization’s roadmap and help provide direction and influence behavior regardless of a person’s position or tenure with the company. Unfortunately, whether posted for others to see or not, core values sometimes are just words with no cause and effect. Core values need to be genuine, need to be promoted internally and externally, and need to be the standard of work.

During the peak of the pandemic and working remotely, we thought it was a perfect time to engage our entire NWIRC staff in a strategic planning initiative. Although we were operating from a strategic plan, we recognized it was not in alignment with changes in our business environment and market demands. We also recognized that most of our staff did not participate in the process when it was developed a few years ago. As part of the initiative, staff contributed their feelings and thoughts through a confidential survey and interview as well as in open group discussions. As a group, we zeroed in our organizational identity and landed on five core values – Passion, Responsiveness, Integrity, Dedication, Experience. It is with PRIDE we serve our manufacturers in these ways. With Passion to help each company and manufacturing as an industry. With Responsiveness always because it matters to our clients always. With Integrity from our independent and objective assessments, to our custom recommendations, to the deliverables we promise. With Dedication to manufacturing and to meeting and exceeding the expectations of those we serve. With our proven manufacturing Experience and constant quest to expand our knowledge and skills. We proudly promote our core values. They are who we are! Here’s a core value challenge for you. Do you have core values that reflect your company? Are they driving your culture?
R&D Tax Credit: Manufacturing New Products in a New World

by Michael S. Neubauer, CPA, CVA, MBA
McGill, Power, Bell & Associates, LLP

The COVID-19 global pandemic has changed the world in a countless number of ways. For many in the manufacturing sector, there has been a change in demand, leading to a fresh look at operations. This often leads to manufacture products they haven’t offered previously. Due to various economic influences, many have found themselves in the position where orders for current product offerings have slowed down, been deferred, or cancelled altogether.

This is happening at the same time that the demand for equipment needed by healthcare providers, including personal protective equipment and ventilators, is at an all-time high. This has led some manufacturers to significantly alter their operations to offer products such as these, or perhaps new product lines to a new group of customers that weren’t being served before.

Manufacturing products that a company hasn’t previously produced presents a number of challenges, as design and the required technology must be assessed in order to successfully produce new products. In most cases, this will be an iterative process that will either lead to a finished product or an abandoned project. Regardless, the risk involved with taking on new initiatives such as this presents an opportunity to take advantage of the R&D tax credits.

Another example of an activity that could qualify for R&D tax credits is a modification of the manufacturing process in order to meet new customer specifications. COVID-19 has led many companies to re-evaluate their needs and the requirements that they place on the products that they order. When this situation arises, a manufacturer has to revisit their manufacturing process and incur time and expense while working through the solution. These activities, which are frequent in today’s world, can also qualify for the R&D tax credits.

The R&D tax credits have evolved over recent years, resulting in a much more inclusive credit that also has benefits that are more realizable than they were previously. Prior laws required that activities qualifying for the R&D tax credits needed to be such that capability, method, and design all had to be uncertain. Additionally, there was a discovery test which required knowledge that exceeded that of other professionals in the field (typically patentable knowledge). These requirements have been modified so that only one of these items (capability, method, or design) is required to be uncertain, and the discovery test was eliminated.

When a company engages in a project or job that qualifies for the R&D tax credit, wages, materials / supplies, and outside services used in activities prior to the point of commercial production will qualify for purposes of computing the credit. This includes, but is not limited to, the time and materials related to production costs, as well as testing and modification of custom tools, dies, molds, production construction costs, and payments to suppliers.

Today’s world has seen unprecedented challenges to manufacturing companies, including but not limited to employees, customers, and overall economic change. While there are numerous opportunities to benefit from programs put in place via the CARES Act, the R&D Tax Credit is an opportunity that should not go unnoticed. The R&D Tax Credit is available at both the Federal and Pennsylvania State level and can be an excellent source of much-needed cash flow during these uncertain times. Now more than ever, it is critical that our manufacturers take advantage of every opportunity available to work through the current landscape.

Side Note: For additional insights on the R&D Tax Credit, NWIRC will offer a no-cost webinar, R&D Tax Credit: Opportunities in the Manufacturing Sector, on August 4 from 11:00am-12:00pm featuring a team from McGill, Power, Bell & Associates. Find more details at www.nwirc.org/events

Bad Tool Choice... as useful as a screen door on a submarine

by Kevin Jones, CEO/Founder, Ectobox

I recently saw and shared a great quote on LinkedIn, “Bad data is about as useful as a screen door on a submarine.” I’m going to twist that quote a bit to say, “Bad tool choice is as useful as a screen door on a submarine.” This is just as true as the original version of the quote.

Solutions like IIoT / Data Driven Manufacturing have a

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unique place in companies and provide a lot of value. That value comes from our solutions’ unique ability to pull data from machines on the plant floor, innately understand that data, add other contextual data to it, and make the data understandable and valuable to all users. We sometimes see manufacturers trying to use other products and they end up missing a lot of the benefits otherwise available.

**ERP** – ERP systems (enterprise resource planning) are great for planning for the future by evaluating what happened in the past. ERP systems don’t provide real-time analytics on manufacturing processes and machines on which you can take immediate action. They’re not great at providing immediate, actionable data on what’s going on now on the factory floor.

**Business Intelligence** – Many BI systems provide insights into processes and are very general products. However, these products falter because they aren’t built to work with machine data and manufacturing-specific processes. To adjust them to work in that way requires a very significant investment in additional time, people, and money to get the solutions to work optimally.

**SCADA** – SCADA systems (supervisory control and data acquisition) primary focus is controlling the manufacturing process and what shouldn’t happen in that process. They aren’t able to provide explanations of what’s right and wrong. Additionally, many of the SCADA systems are built on older technology and struggle to make data available to the wide audience required.

Can’t fault anyone for trying to save a few bucks and turn one tool into a Swiss Army knife. However, for the truly important aspects of a manufacturing business you need the specialized tools. A chef won’t use the blade nor a carpenter use the screwdriver on a Swiss Army knife to do their professional jobs. Neither should you if you can help it.

**Side Note:** NWIRC will offer a free webinar, *IIoT Can Help You Successfully Reshore Production*, featuring Kevin Jones of Ectobox, on September 10 from 11:00am-12:00pm. Find more details at www.nwirc.org/events.

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**Honing in on 8 Wastes**

A 4-part series to examine and elevate awareness of the 8 wastes in manufacturing (*DOWNTIME*), and tips for enabling your employees to see them too.

**Eight Wastes, Part One:**

Failing to produce or deliver a quality part the first time will generate rework and scrap. These **Defects** impact many aspects of your business, including time, money, and customer satisfaction. There are many causes of **Defects**, including lack of process standards, not having a clear understanding of customer needs, poor quality control, and poor documentation. And, like any of the 8 wastes, **Defects** don’t just happen with parts being made on the shop floor. There are **Defects** in the office setting with issues like inaccurate financial reporting or missed deadlines. Some common solutions for limiting the waste of **Defects** are developing standardized work plans, creating job aids (such as checklists and posters), and implementing strict quality control processes (using tools like statistical process controls).

**Overproduction** is creating more than is needed or before it is needed. Some say ‘getting ahead which leads to getting in the way’. Your front office may see a lot of this waste with printing excessive copies or creating reports that aren’t reviewed. On the shop floor, if there is a long or difficult set-up process, the tendency is to produce more than what you need or stockpile, just in case, opposed to producing exactly what the customer needs. Producing components before the next stage in a process is ready for them can also bog down your flow. Closely examining your production needs and process, using a specific method or analytical tool, will help you pin-point areas for improvement.
YOUR STRATEGIC BUSINESS ADVISORS

If you have questions, or would like to speak with someone from NWIRC about services, please contact your Strategic Business Advisor (SBA):

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UPCOMING EVENTS

R&D Tax Credit  
August 4  
-Webinar  
As manufacturers change their product offerings to meet the ever changing needs of their customers, the R&D Tax Credit can be a vital part of the formula for success. Join the McGill, Power, Bell & Associates team for insights on how this tax credit can help with cash flow during uncertain times.

ISO 9001:2015 Internal Auditor  
August 18, 19, 20  
-St Marys  
Review of the ISO 9001:2015 quality management system, auditing process, audit instruments and the documentation process. Participants learn how to conduct an audit, write the audit report, and take corrective actions.

Uncovering Flaws in Your Supply Chain  
August 26 & September 2  
-Webinar Workshop  
A 5-hour, no-cost workshop split among two-2 1/2 hour virtual sessions. Everyone agrees that supply chains are living things, many of which are currently on life support. Getting your supply chain to be a proactive, responsive living thing requires a multi-pronged approach to fix every aspect of your organization that contributes to and benefits from its operation. These sessions will highlight the changes that need to be made, the proven multi-faceted approaches to fixing the problem, and the organizational impacts that will result. There is no magic pill, but an organized approach that focuses on the basics will get it done.

For more information or to register for training, visit www.nwirc.org