

Digital Transformation: the EGA Way

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Abstract



Digital Transformation has been in every industry leader's mind for several years. Together with Industry 4.0, it is revolutionising most industries in the world and aluminium is likely to be no different. This is about leveraging the exponential development of Information Technology (IT) capabilities to transform the way industries operate. Nobody can ignore the power of Artificial Intelligence, Internet of Things or Augmented Reality just to name a few of those technologies. All companies adopting digital, and Industry 4.0 are focusing on speed, agility, and technology mastering and as a result are enjoying a significantly improved performance. EGA is leveraging 10 digital capabilities to digitise, digitalise and digitally transform its operations. At EGA, the journey started a few years ago when we discovered and adopted some of those capabilities. We are now moving into the third phase out of four of our transformation programme. This phase is all about industrialising the way we define, develop, deploy use cases through our digital factory to provide value to EGA. It also means strong foundations such as strategically aligned roadmaps, teams upskilling, deploying cutting edge technical platforms, and transforming the way of working with Agile frameworks as they help speed up and scale up our impact to the company operations. Value can be realised in different stages of the aluminium value chain as can be illustrated by some of the use cases EGA deploys in Carbon, in Reduction, in Supply Chain or in Marketing & Sales.

Keywords: Industry 4.0, Digital Transformation, Artificial intelligence, Data.

1. Why is EGA Digitally Transforming?

The development of technology and the deployment of innovation have reached a pace never seen before. It is not following a linear evolution anymore but what looks like an exponential one. This is very prominent in the Information Technology field where massive investments across the globe have fuelled what is now called the 4th industrial revolution also known as Industry 4.0. Bringing the new digital technologies to revolutionise the way all industries operate is a massive transformation.

Before getting into how we make this happen at EGA, we investigated what happened to those companies in other industries that are already on the way. This is now even clearer that the benefits of such transformation are very significant financially (e.g., typically 10 % increase on EBITDA) but also in terms of employee engagement, resilience, and adaptability. And this is what really matters nowadays: being able to adopt faster than others the impactful technologies is critical to sail through a disruptive world.

We all know companies in the consumer industries that have come from zero and became a clear market leader, a trendsetter and the often most profitable. They all share this appetite for speed, agility, efficiency, and technology mastery.

2. What is our Digital Ambition and Focus Areas?

At EGA we are looking at three levels of transformation, from “digitisation” which is about turning the analogue into digital, then onto “digitalisation” which is about improving the game by embedding the digital into a transformed process and then towards “digital transformation” which means changing the game, changing the business into a more complete digitally inspired change. All of this requires strong digital platforms and foundations to be enabled.

Many technologies have seen incredible development in the last decade. For EGA we have selected 10 digital capabilities that we want to leverage (Figure 1). They represent a wide range of capabilities, and we will progressively use them all.



Figure 1. Ten digital capabilities that we want to leverage.

EGA has adopted a statement to materialise its digital ambition: “As a digital lighthouse for our region, we democratise digital capabilities to ‘change the game’ and create inspiring experiences for ourselves, our customers and our partners.” This is incredibly ambitious and inspiring for all team members involved and is guiding us on some very specific way we take at EGA on this matter.

3. Where Are We in the Overall Journey?

We have adopted an approach in four steps to make EGA transformed digitally:

- Discovery & Adoption
- Structuration
- Industrialisation
- Digital is the new norm.

These steps of evolution are to be assessed along four foundational capabilities. Those are absolutely critical to make the transformation sustained and impactful on the long run:

- Digital Ambition & Value Roadmap
- People & Capabilities
- Technology & Infrastructure
- Governance & Way of Working.

In the initial Discovery & Adoption phase, the main objective is to learn, to experiment, to work in small areas and eventually to fail here and there. This phase is not the most satisfactory but is