

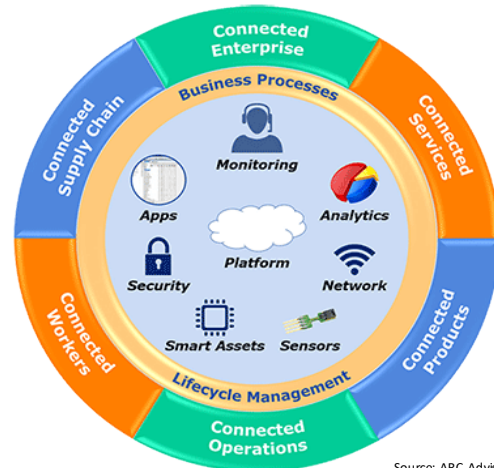
## Digital Advantage Framework for Growth and Competitiveness in Small and Medium Enterprises.

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### Introduction

All companies now operate in an increasingly digital world, however, Small and Medium-sized Enterprises (SMEs) face different challenges when compared with Multinational Enterprises (MNEs). Financial resources, use of advanced technology, alliance with universities and organizational culture are amongst the features noted by Mittal *et al.* (2018), where SMEs are considerably constrained when compared to MNEs. The lack of a clear roadmap is holding back the progress of SMEs in the digital age. When preparing a report for the Irish government, the European Investment Bank (2019) highlighted that digitalisation is not just about acquiring IT equipment and systems. It encompasses fundamental business dimensions: processes, products and business models. They also state that companies that embrace digitalisation tend to experience better access to new markets, increased innovation and improved competitiveness.

The aim of this study is to understand the requirements of SMEs regarding the implementation of digitalisation, to establish the strengths and weaknesses of what is currently available, and to design an improved framework to cater for the needs of this large and important business sector.



Source: ARC Advisory Group, 2020

DIMENSIONS	CUSTOMER	STRATEGY	TECHNOLOGY	OPERATIONS	CULTURE, PEOPLE, ORGANIZATION
SUB-DIMENSIONS	CUSTOMER ENGAGEMENT	BRAND MANAGEMENT	APPLICATIONS	AGILE CHANGE MANAGEMENT	CULTURE
	CUSTOMER EXPERIENCE	ECOSYSTEM MANAGEMENT	CONNECTED THINGS	AUTOMATED RESOURCE MANAGEMENT	LEADERSHIP & GOVERNANCE
	CUSTOMER INSIGHTS & BEHAVIOR	FINANCE & INVESTMENT	DATA & ANALYSIS	INTEGRATED SERVICE MANAGEMENT	ORGANISATIONAL DESIGN & TALENT MANAGEMENT
	CUSTOMER TRUST & PERCEPTION	MARKET & CUSTOMER	DELIVERY GOVERNANCE	REAL-TIME INSIGHTS AND ANALYTICS	WORKFORCE ENABLEMENT
		PORTFOLIO, IDEATION & INNOVATION	NETWORK	SMART AND ADAPTIVE PROCESS	
	STAKEHOLDER MANAGEMENT	SECURITY	STANDARDS AND GOVERNANCE AUTOMATION		
	STRATEGIC MANAGEMENT	TECHNOLOGY ARCHITECTURE			
CRITERIA	+ 175 specific digital criteria to test your organizational maturity				

Source: TM Forum, 2017

“Digitalisation... an enabler for Industry 4.0”

Schuh *et al.* (2017)

“SMEs accounted for 99.8% of total number of enterprises in 2016 and over 68% of all persons engaged” in Ireland

CSO (2016)

Three gaps SMEs have regarding digital transformation:

- Gap 1: Lack of infrastructure and mind-set;
- Gap 2: An ideal maturity model capable to provide self-evaluation;
- Gap 3: After the assessment, SMEs need support on how to proceed with the next steps.

Mittal *et al.* (2018)

### Maturity Models

A maturity model is an effective tool to provide guidelines for a clear understanding of the required steps it takes to dive into the digital transformation process. It brings a set of guidelines for transformation projects, combined with a framework it leverages the chances of a successful digital transformation process in either SMEs or MNEs (Anderson & William, 2018). The foremost reason of having a maturity model is to help companies assess their overall digital readiness (Gill & Vanboskirk, 2016). In order to find the maturity readiness of an organisation a maturity model framework may be an insightful tool to that end. It contains the key areas also described as dimensions or action fields. The sub-dimensions are items that make it possible to assess the dimensions through questionnaires, surveys or interviews.

### Findings to date

- The assessment of digital maturity occurs mostly through questionnaires, surveys or interviews.
- Most of the maturity models come from consultancy companies and do not instruct on how to proceed with the next steps once you know the current level of maturity.
- Some SMEs, according to Mittal *et al.* (2018) may still position themselves as “novice” or “level 0” (no or poor embracement with digital and smart technology, bandwidth connectivity, basic cybersecurity and information exchange between systems).
- There is a lack of Digital Maturity Models tailored towards SMEs needs.

### Next Steps

- Design and implement survey to identify the use of data-based decision making across Irish SME sector
- Conduct case study analysis aiming to verify SME digitalisation adoption requirements and practices
- Develop a framework of assessment and adoption techniques to support the implementation of higher level business process analysis in SMEs.
- Currently preparing a submission to DSI 51<sup>st</sup> Annual Conference “Decision Sciences in the Age of Connectivity”

### References

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