Structural Trends

Content Chain Maturity

Table of Contents

Introduction

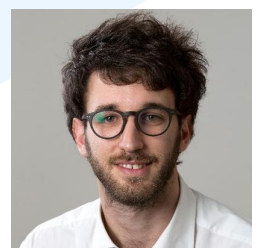**Maturity Framework**

Maturity Dimensions

Introduction

IABM Structural Trends Reports track developments in specific technology business models as well as other structural changes within the broadcast and media sector. The purpose of these reports is to enable member companies to better understand the drivers change in the industry as well as emerging best practices at media companies. This should provide member companies more tools to better address the challenges lying ahead, from new product development to marketing strategy. These reports contain actionable insights for both suppliers and media companies.

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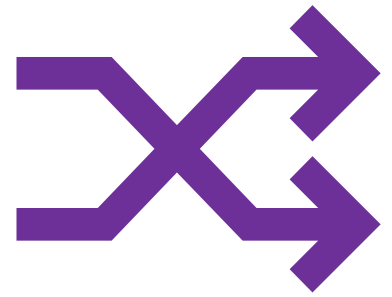
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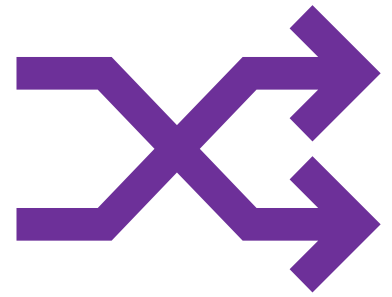
Maturity Framework

Next-Generation Content Chains

The broadcast and media industry has gone through enormous change over the past few years. New customer demands have driven new business models that rely on new technologies to power them. As a result, the journey of content from the creator right through to the consumer is being transformed. This process is increasingly resembling a 'media factory' - which requires a fully connected BaM Content Chain® to deliver the efficiency required to compete successfully.

Following interviews with broadcast and media technology users and suppliers as well as extensive research on the topic of supply chain management, we have drafted a list of the possible layers and dimensions of BaM Content Chain Maturity™ in the broadcast and media industry. We have also produced a visual journey to next-generation content chains based on these dimensions as well as a segmentation of buyer attitudes based on their background and their level of BaM Content Chain Maturity™.

Maturity Framework

Next-Generation Content Chains

Our BaM Content Chain Maturity™ framework is designed to provide a set of dimensions against which broadcast and media organizations can measure their own deployment level of next-generation technologies and processes to manage their content chains more effectively, from content creation to consumption. Media technology suppliers can in turn can measure the development of their offerings so as to meet technology users' changing requirements more effectively.

The maturity dimensions we identified describe objectives that next-generation content chains should achieve to remain competitive. These objectives can be summarised with three terms which our consultations found to be the most important goals/challenges for broadcast and media organizations going forward:
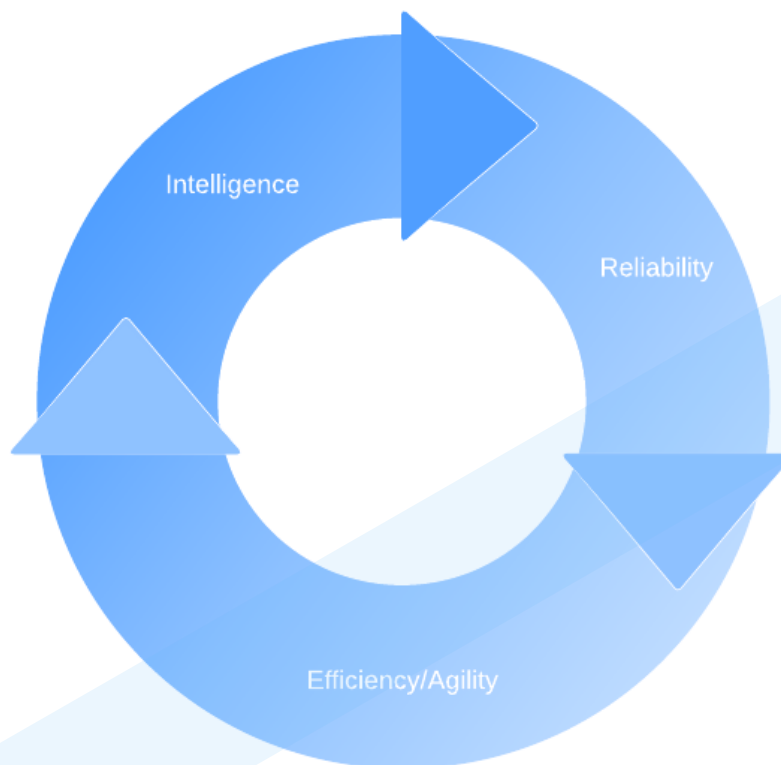
- Intelligence
- Efficiency/Agility
- Reliability

Progress to BaM Content Chain Maturity™ entails the increased use of data to power operations, reliance on an efficient and agile infrastructure and a clear strategy to manage risk throughout the BaM Content Chain® (and in single content chain blocks). Broadcast and media organizations can achieve different levels of maturity in their journey to next-generation content chains. These can, for example, still be legacy, disconnected silos, state-of-the-art connected chains, or anywhere in between - depending on the stage of development in each of the seven dimensions we have identified.

Maturity Framework
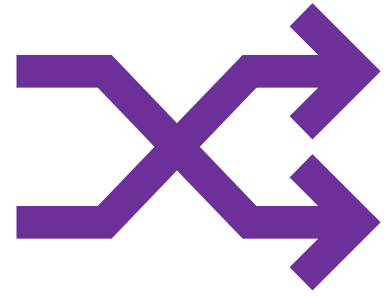
Intelligence, efficiency/agility and reliability are not themselves separate silos but are highly connected in mature content chains. Intelligence on media operations should power efficient and agile activities as well as make them reliable, for example. The linkage between different objectives is further explored later in this chapter but is visually presented in the figure. Below, we explore the link between objectives, layers and dimensions in the maturity framework.

Maturity Framework
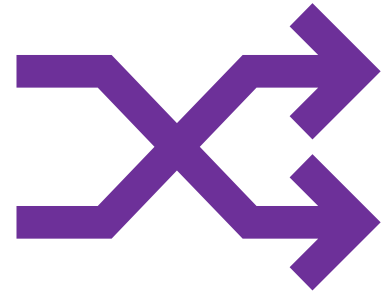
Structure of the Model

Having identified the three main objectives of next-generation content chains, we have turned these into three layers at the heart of a maturity framework:

- Intelligence > Data Layer in the framework
- Efficiency/Agility > Infrastructure Layer in the framework
- Reliability > Control Layer in the framework

The first two layers have been further divided into three dimensions each. The Data layer has been divided into:

- Gathering data
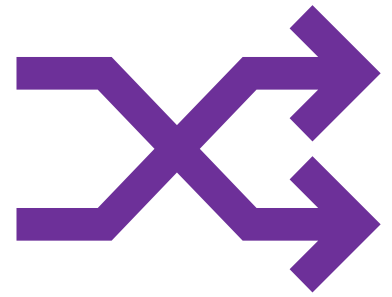- Analysing data
- Predicting trends

The Infrastructure layer has been divided into:

- Optimizing operations
- Automating operations
- Accessing content and technology tools

The Control layer is instead made up of only one dimension: Governing risk
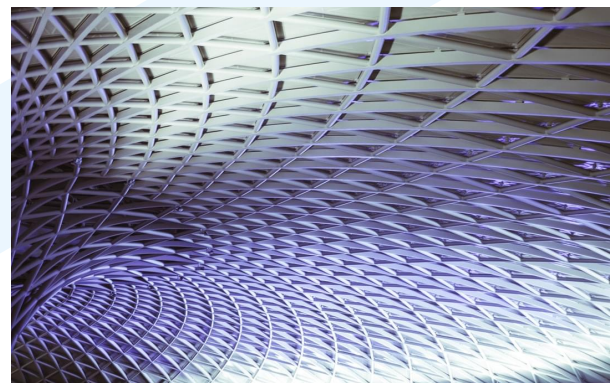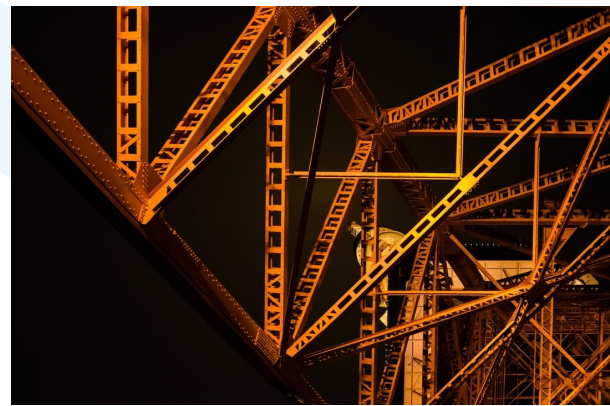
Maturity Framework

Different layers and dimensions are interconnected

As hinted earlier, the layers and dimensions should not be considered separate silos but rather as deeply interconnected with each other. An example of this is an automated dashboard (i.e. analysing data) enabling users to monitor the status of their content chains (i.e. governing risk).
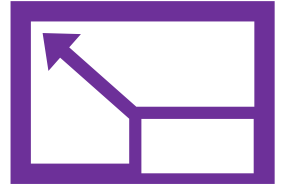
Relevance to broadcast and media organizations and technology suppliers

This framework and the dimensions outlined below could be used as a reference for broadcast and media organizations embarking on a journey to become more intelligent, agile and reliable.

Technology suppliers can use this framework as a reference for their activities, ranging from product development strategies and customer segmentation to sales and marketing campaigns.

The relevance of this framework relies on the establishment of a common language for BaM Content Chain® maturity as well as the definition of maturity steps and activities that both broadcast and media organizations and technology suppliers can use to evaluate their development with respect to their technology solutions.

Gather

This dimension is about gathering data on content, rights, operations, audiences.

Research participants highlighted that there are different aspects of BaM Content Chain Maturity™ with regards to data gathering. Firstly, the data infrastructure should be integrated, eliminating data silos to build interconnected data lakes. This was highlighted as a major focus in Gather and a costly endeavour with broadcast and media organizations having to make legacy silos work together. Secondly, different types of data should be gathered, including operational data, financial data, rights data, content data and audience data. It is not just about the metadata, particularly as broadcast and media organizations go direct-to-consumer. Thirdly, data should be cleaned and gathered at scale to be relevant to organizations and power some of the other BaM Content Chain Maturity™ dimensions – and particularly Predict.
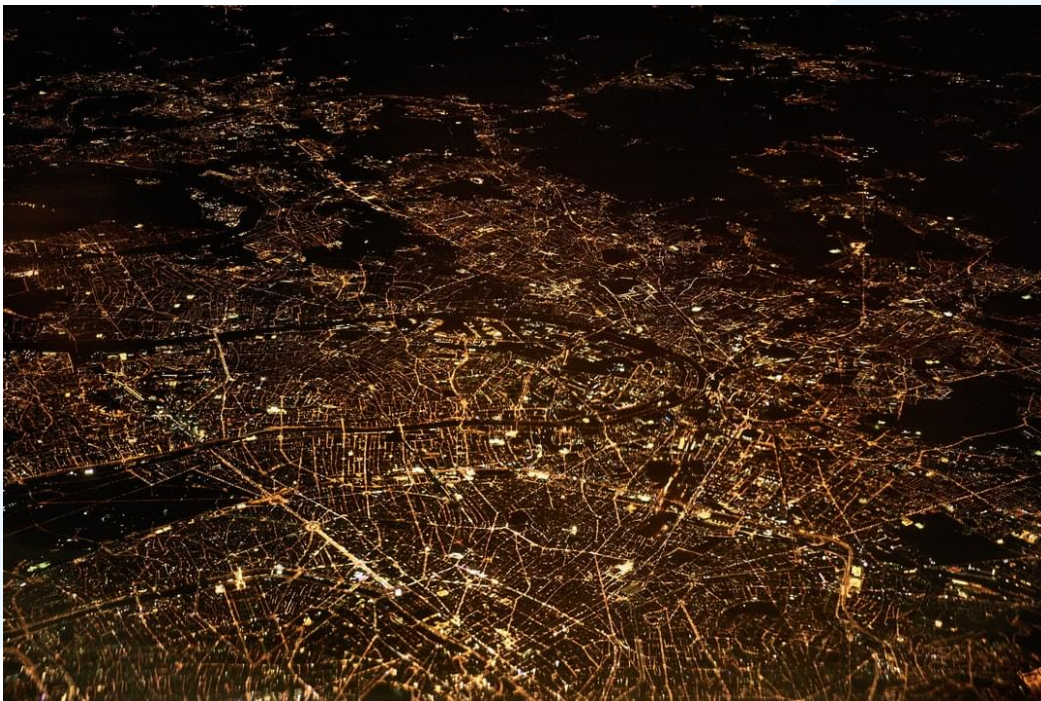
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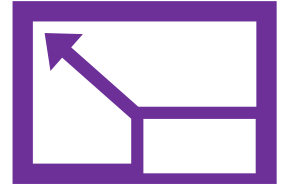
Analyze

This dimension is about analyzing the data gathered to power decision-making.

Research participants focused on the increasing importance of data visualizations and dashboarding functionalities in technology solutions. This importance was linked to other parts of the BaM Content Chain® , and particularly Govern, to enable analysts to evaluate potential issues in the content chain in real-time. Some buyers mentioned the need to build dashboards on top of existing vendors' solutions and the fact that these have become essential tools in their everyday job. Some buyers also highlighted the establishment of new KPIs focused on speed of deployment and business agility. Generally, the most mature organizations often referred to data as deeply rooted in the company culture. Indicators of maturity in Analyze include the presence of a data analytics department to produce actionable insights as well as tracking usage of business intelligence systems to evaluate the return on investment on these solutions.

Maturity Dimensions
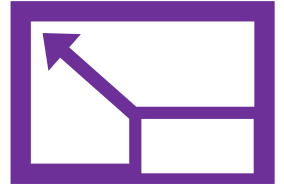
Predict

This dimension is about predicting unknown variables and events.

Most research participants highlighted the need for their organizations to further work in this dimension, which is not highly developed at broadcast and media organizations. Predict is straightforward to measure through a variety of forecast error measures that can be borrowed from statistical science. The deployment of AI/ML solutions – for prediction and not only for automation - was highlighted as an indicator of development in this category. Like in Analyze, another indicator of development in Predict is the presence of a data analytics department within an organization – the few companies that mentioned this highlighted that these departments have grown significantly in recent years. Predict can help organizations with anything from cost models to capacity planning.
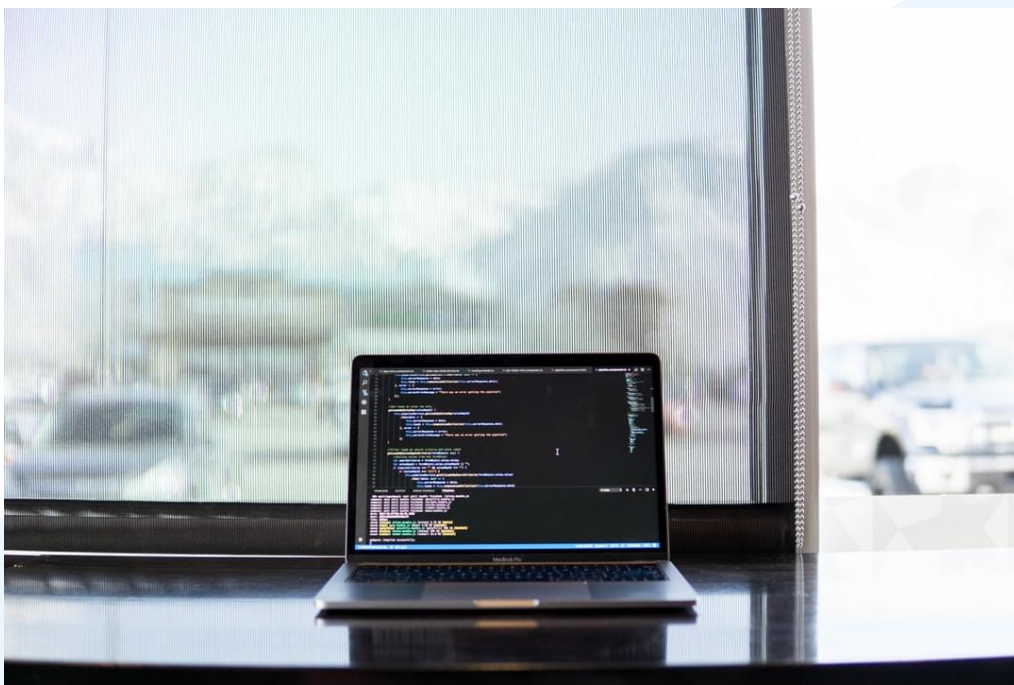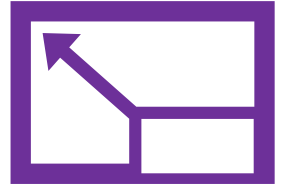
Optimize

This dimension is about optimizing the utilization of resources and avoiding effort duplication.

Optimize is mostly related to the deployment of unified content chains for both linear and non-linear publication of content. Most research participants highlighted how a high level of maturity in this dimension is profoundly affected by the level of automation of operations – underscoring the link with Automate. In fact, in the most mature organizations, higher levels of resource utilization are driven by increased workflow automation. Both buyers and suppliers agreed that Optimize is also linked to business agility and being able to do (and change) things more quickly than ever before. An indicator of this is time to launch or modify a certain technology solution. Buyers highlighted the need to optimize both their on-premise and cloud-based environments alike. Further on-premise optimization can be driven by better utilization of resources without expanding the physical infrastructure's footprint while multi-cloud workflow management and orchestration was highlighted as an area of interest for cloud-based environments – although not a developed area as we will see later in this report.
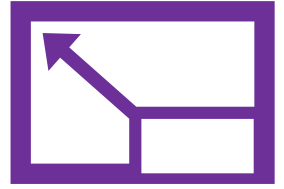
Automate

This dimension is about automating workflows and liberating resources.

As noted above, Automate is closely linked to Optimize although most research participants stressed that it should be a separate dimension and objective for next-generation content chains. Most buyers highlighted the need to automate any routine workflow but underscored the importance of not automating tasks that are becoming more important for their organizations – with data analytics being one of them, as evidenced in Analyze and Predict. The most mature buyers are measuring the level of automation in their content chains and analyzing the impact of new initiatives to automate workflows on specific sets of workflows. In the most mature organizations, automation is increasingly being driven by AI/ML solutions powering different services. In the least mature organizations, automation is mostly driven by bespoke solutions providing bespoke broadcast automation tools..

Maturity Dimensions

Access

This dimension is about enabling access to content and to technology tools.

In terms of content, buyers highlighted that creating a shared media pipeline that is easily accessible by all supply-chain parties, including partners, is essential for increasing productivity in terms of content production, management and monetization workflows. For example, a cloud-based content ecosystem allows multiple users to edit content at the same time and enables easier discoverability of content for selling it – to consumers or other media companies. From a technology perspective, most buyers mentioned the need to create software-based, integrated vendor ecosystem through APIs. Most suppliers agreed with this and highlighted that vendors need to be open. Most research participants highlighted that an indicator of maturity in Access is the number of users having access to a certain platform at different stages of the media supply chain – with Govern managing entitlements to access a certain piece of content and/or a technology tool.

Maturity Dimensions
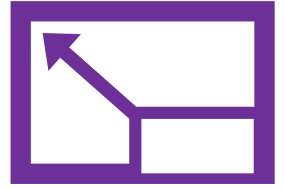
Govern

This dimension is about managing risk, security and contracts.

Many highlighted the increasing importance of this dimension as broadcast and media organizations move to global interconnected content chains. These content chains present an increasing number of risks from both a security and a legal perspective. From a security perspective, the adoption of automated tools to highlight potential risks within the BaM Content Chain® and respond to them was indicated as a measure of maturity – this is linked to the Automate and Predict dimensions. Also, the ability to quantitatively assess these risks and rank them on a prioritization scale was highlighted as very important and an area of focus going forward. However, the analysis of the status of the BaM Content Chain® through operational dashboards was evidenced as something that should not be completely automated and is mission-critical for media organizations – this is linked to the Analyze dimension. From a legal perspective, most broadcast and media organizations were described as not very developed. This is becoming increasingly important as these companies go global – this has implications for rights management, and direct-to-consumer – this has implications for the protection of consumer data. The adoption of clear practices regarding this was highlighted as an indicator of maturity.
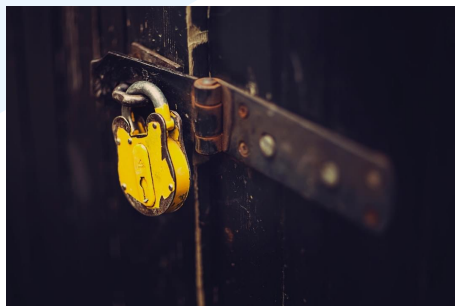
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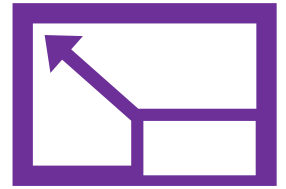
Development of Dimensions

Below, we have included some data on the development of each dimension (on a scale from 1 to 5) according to buyers. In terms of development, most buyers think that they are quite developed in the Automate, Analyze and Optimize dimensions and least developed in the Predict and Access dimensions. On the next page, we provide a map of BaM Content Chain Maturity™ steps to visualize the progress to next-generation content chains.

Maturity Dimensions

Content Chain Maturity Steps

Dimension	Low Maturity	Medium Maturity	High Maturity
Gather	Data infrastructure is still separated in silos with no blending of relevant data points	Data infrastructure is reasonably integrated but little blending of different data types	Data infrastructure is well integrated with varied mix of data used to drive content chain activities
Analyse	Little reliance on data-driven dashboards and KPIs to drive decision-making. No data analytics department	Moderate reliance on data-driven dashboards and KPIs to drive decision-making. No data analytics department	High reliance on data-driven dashboards and KPIs to drive decision-making. Established data analytics department
Predict	No reliance on predictive capabilities but qualitative assessment of future needs	Some reliance on predictive capabilities to understand future needs and no data analytics team	Moderate to high reliance on predictive capabilities and investment in data analytics team
Optimize	Qualitative evaluation of operational optimization and low reliance on cloud-based resources	Objective evaluation of operational optimization with moderate reliance on cloud-based resources	Data-driven optimization of operational resources and high reliance on cloud-based resources
Automate	Broadcast-level automation of workflows but no reliance on smart automation techniques such as AI/ML	Some reliance on smart automation techniques such as AI/ML but no process in place to measure their effectiveness	Moderate to high reliance on smart automation techniques such as AI/ML and process in place to measure their effectiveness
Access	Disconnected content chain with limited access to content and technology resources	Reasonably connected content chain but some holes in terms of technology integration	Well connected content chain with easy access to content and integrated technology solutions
Govern	Qualitative risk assessment and control driven by post-accident evaluation of both security and legal risks	Objective risk assessment based on established security policies but low focus on legal risks	Data-driven governance based on clear rules and automated control from both a security and legal perspective

Maturity Dimensions

Below, we provide a qualitative segmentation of buyers. This segmentation gave rise to four clusters of buyers, evaluated from both a background (IT and broadcast engineering) and a maturity perspective (low or high BaM Content Chain Maturity™ compared to the dimensions described earlier).

Buyer Segmentation

IT

Buyer Background

Broadcast

Low — Buyer Maturity — High

High focus on business outcomes. Likely to invest in what works financially

Medium investment in cloud-based operations and IT technology

High propensity to build technology in-house. Likely to rely on partners for knowledge and SW development
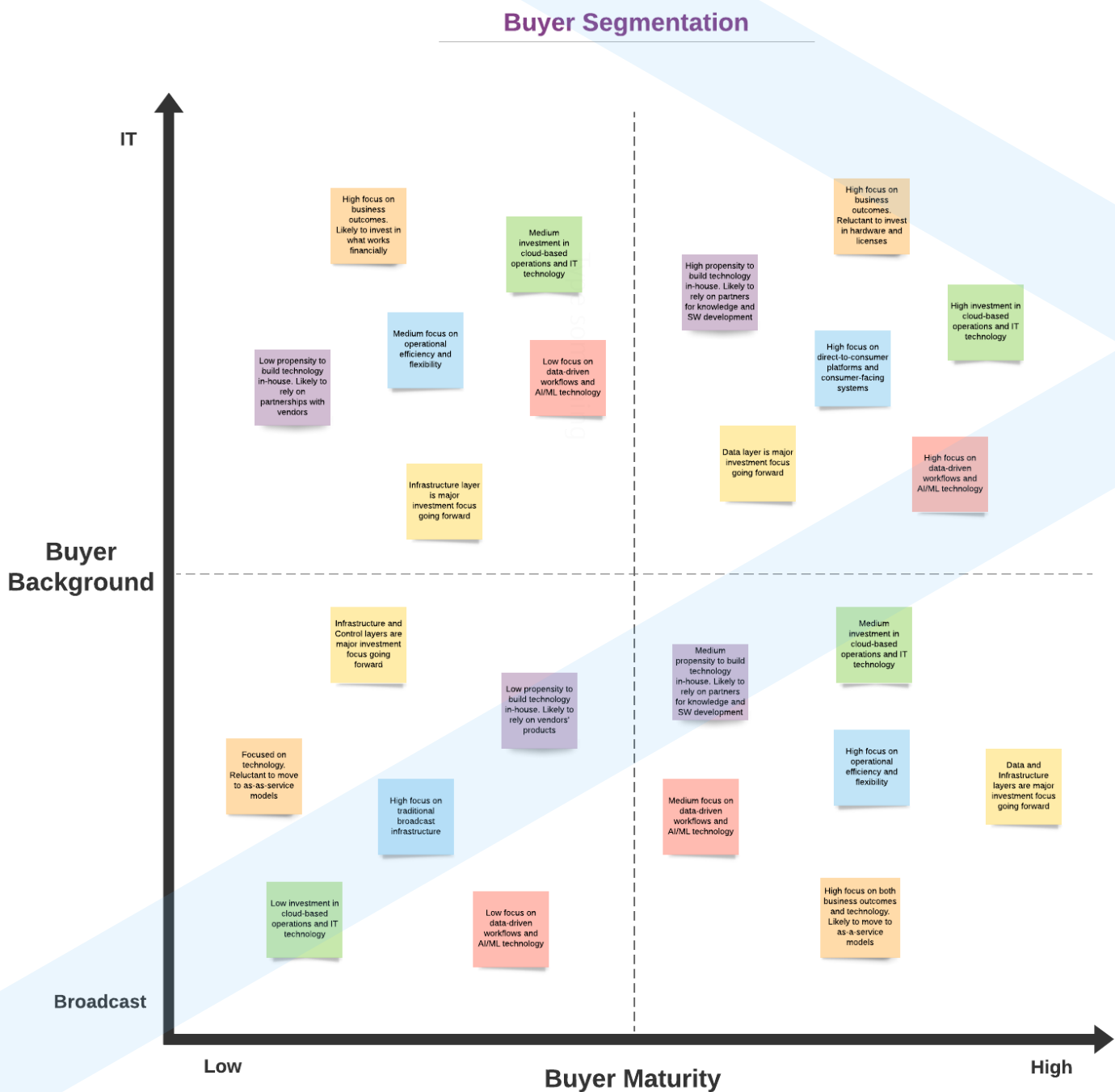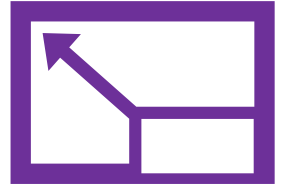
High focus on business outcomes. Reluctant to invest in hardware and licenses

High investment in cloud-based operations and IT technology

Medium focus on operational efficiency and flexibility

Low propensity to build technology in-house. Likely to rely on partnerships with vendors

Low focus on data-driven workflows and AI/ML technology

High focus on direct-to-consumer platforms and consumer-facing systems

Infrastructure layer is major investment focus going forward

Data layer is major investment focus going forward

High focus on data-driven workflows and AI/ML technology

Infrastructure and Control layers are major investment focus going forward

Low propensity to build technology in-house. Likely to rely on vendors' products

Medium propensity to build technology in-house. Likely to rely on partners for knowledge and SW development

Medium investment in cloud-based operations and IT technology

Focused on technology. Reluctant to move to as-as-service models

High focus on traditional broadcast infrastructure

Medium focus on data-driven workflows and AI/ML technology

High focus on operational efficiency and flexibility

Data and Infrastructure layers are major investment focus going forward

Low investment in cloud-based operations and IT technology

Low focus on data-driven workflows and AI/ML technology

High focus on both business outcomes and technology. Likely to move to as-a-service models

Maturity Dimensions

The segmentation considers the following characteristics:

- Buying Focus: included in orange boxes
- Operational Focus: included in the blue boxes
- Maturity Layer Focus: included in yellow boxes
- Propensity to in-house development: included in purple boxes
- Cloud/IT Investment: included in green boxes
- AI/ML/Data Investment: included in red boxes

As you can see from the chart above, maturity is determined by different factors, including:

- A higher focus on business outcomes
- A higher focus on operational flexibility and consumer-facing systems
- A higher focus on the Data layer of the BaM Content Chain Maturity™ framework
- A higher propensity to build technology in-house and establish deeper relationships with vendors
- A higher investment in cloud-based operations and as-a-service models
- A higher investment in data-driven workflows