

# Informa Capital Markets Day

2021-2024 Growth Acceleration Plan II

7 December 2021



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# Today's Presenters



Stephen A. Carter

Group Chief Executive



Gareth Wright

Group Finance Director



Charlie McCurdy

CEO, Informa Markets



Max Gabriel

President, IIRIS



Annie Callanan

CEO, Taylor & Francis

# Capital Markets Day Schedule

|            |    |                                                                                    |
|------------|----|------------------------------------------------------------------------------------|
| 1.00pm GMT | ●● | Stephen A. Carter, Group Chief Executive and Gareth Wright, Group Finance Director |
|            | ●● | New Informa: Accelerated Growth & Portfolio Focus                                  |
| 2.00pm GMT | ●● | Q&A                                                                                |
| 2.30pm GMT | ●● | Refreshment Break                                                                  |
| 2.45pm GMT | ●● | Charlie McCurdy, Chief Executive Informa Markets and Max Gabriel, President IIRIS  |
|            | ●● | Growth & Acceleration: B2B Events & B2B Market Access                              |
| 3.15pm GMT | ●● | Annie Callanan, Chief Executive, Taylor & Francis                                  |
|            | ●● | Growth & Acceleration: Academic Markets & Knowledge Services                       |
| 3.45pm GMT | ●● | Q&A and Wrap-Up                                                                    |



# 2021-2024 GAP II

New Informa:  
Accelerated Growth & Portfolio Focus

Stephen A. Carter  
Group Chief Executive

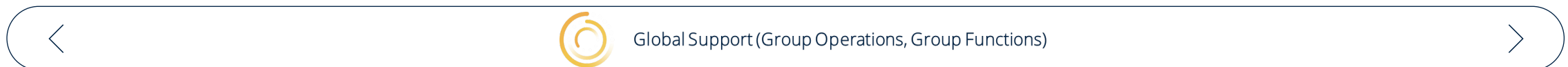
# New Informa



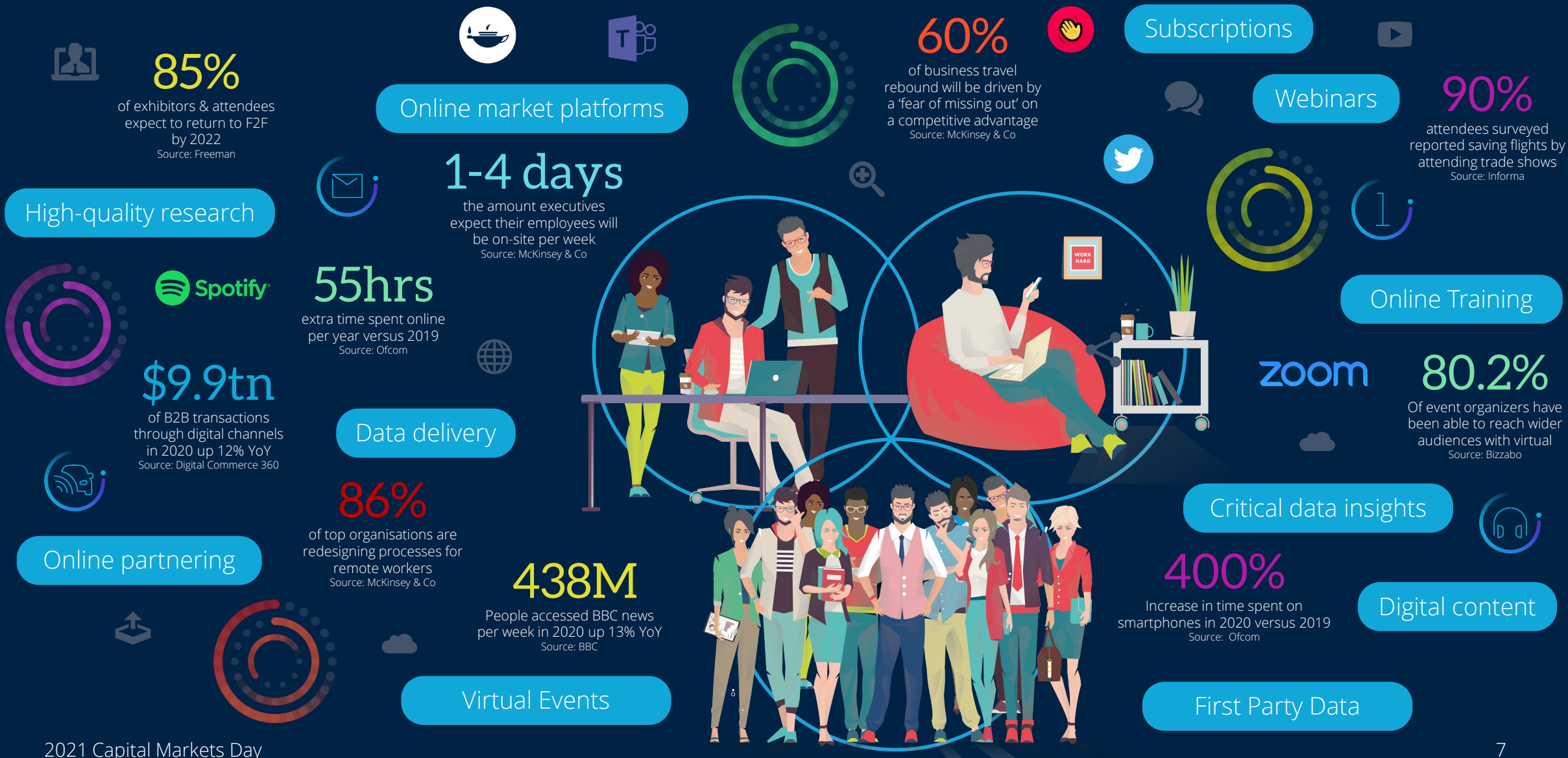
## B2B Markets & Digital Services



## Academic Markets & Knowledge Services



# Knowledge & Information Economy



# Championing the Specialist



## Championing the Specialist

connecting people with knowledge to help them learn more, know more and do more

Think Big. Act Small

Trust must be earned

Success is a partnership

More freedom. Fewer barriers



Specialist Content

Specialist Data

Specialist Brands

Subscriptions

B2B Audiences

Specialist Knowledge

Depth in Specialist Markets

Audience Development

First Party Customer Data

Digital Demand Generation

Virtual Events

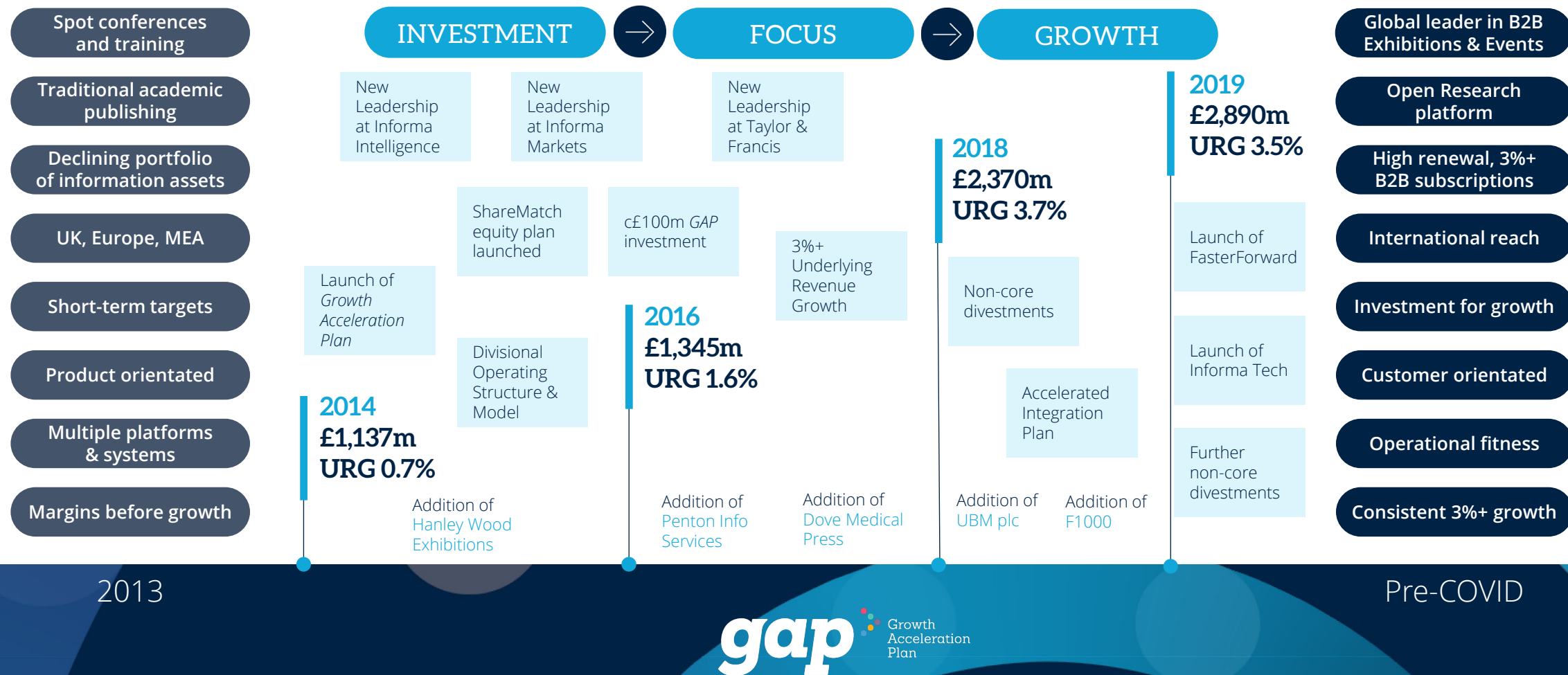
Advanced Learning

# 2014-2024 Market Specialisation



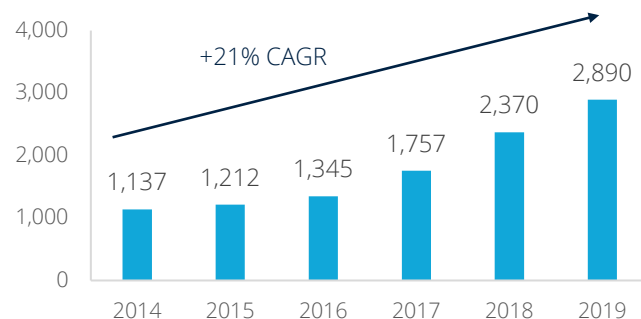
Depth in Specialist Markets, closer to customers, improving mix & quality of revenue

# 2014-2019 GAP I: Investment, Focus and Growth



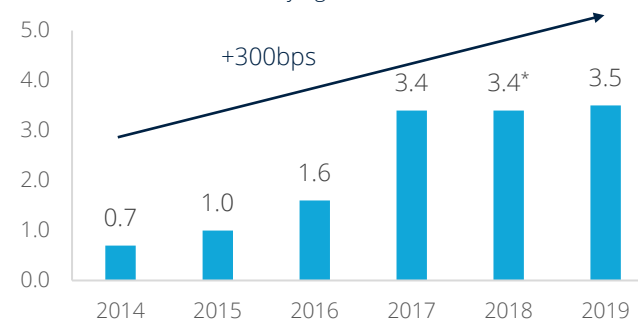
# 2014-2019 GAP I: Accelerated Growth & Performance

## Reported Revenue (£m)

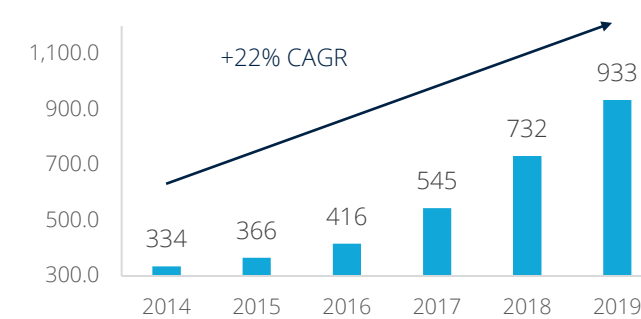


## Underlying Revenue Growth (%)

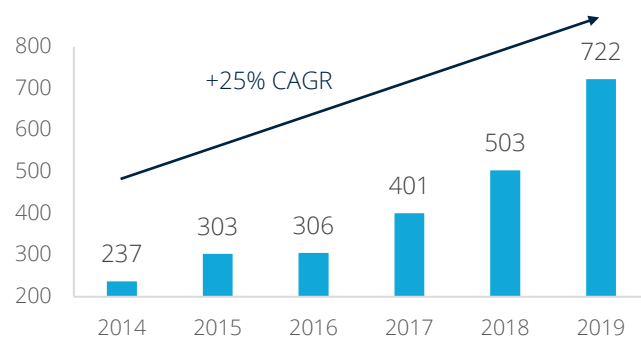
\*2018 New Informa Underlying Revenue Growth



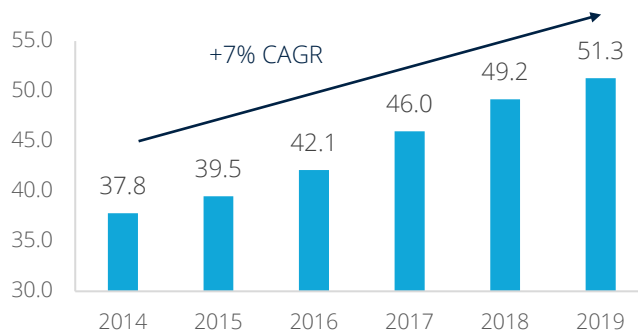
## Adjusted Operating Profit (£m)



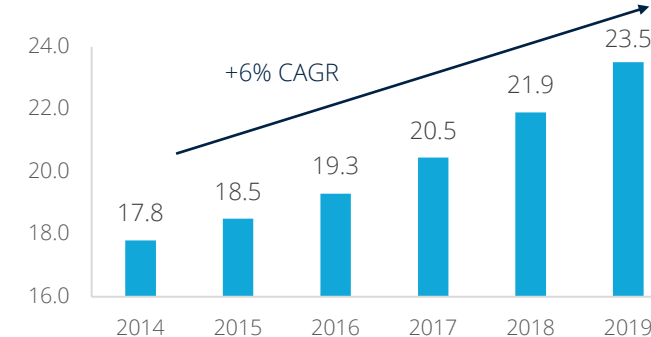
## Free Cash Flow (£m)



## Adjusted Earnings per Share (p)



## Dividends per Share (p)



**2014-2019: SIX CONSECUTIVE YEARS OF GROWTH IN REVENUE, PROFIT, EARNINGS, CASHFLOW & DIVIDENDS**

# 2020-2021 Stability & Security

**COVID-19 Impact: 2020/2021/2022: Considerably longer and more enduring than many expected**

## Postponement Extended to mid/late Spring 2021

- **Postponement Programme** extended to mid 2021, with c250 physical events and £300-400m budgeted revenue moved to later in the year
- Full schedule of **Virtual Events**, with extensive pre-planning and pre-marketing
- **Informa AllSecure** adopted by all Informa events

## Further Financing Flexibility

- **Increased liquidity and flexibility** in H1 through extension of banking facilities and raising additional equity
- **Additional steps to increase flexibility:**
  - **£500m equivalent Euro Bond**
  - **Renegotiate or repay** US Private Placement notes
- **Remove point covenant & extend maturities**

## COVID-19 ACTION PLAN

## Effective Cost & Cash Management

- **£300m total savings** to adj. operating profit in H1 2020 through:
  - | [Direct Costs](#) | [Recruitment Rate](#) | [Discretionary Costs](#) |
  - | [Project Review](#) | [Rewards Phasing](#) | [Employment Flexibility](#) |
- **Next phase of Cost Management Programme** secure £400m FY direct savings & £200m+ annualised indirect savings by year-end 2020
- **Cashflow positive by January 2021**

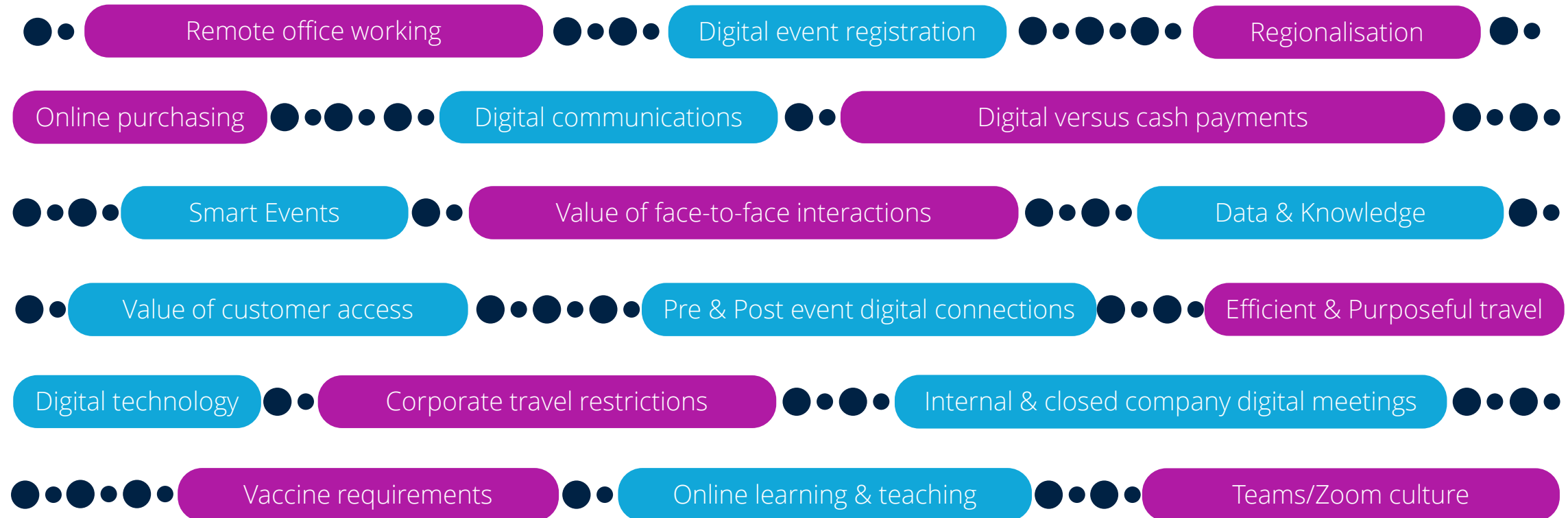
## Ongoing Colleague Support

- **Prioritise the safety & wellbeing of Colleagues and Customers**
- **Adherence and advice** on local measures and restrictions
- **Remote working** support
- Flexibility for **community volunteering**
- **Informa Colleague Support Fund**
- **Balanced Working Programme**



# Future Forward – lasting COVID trends and opportunities

## The Future has arrived early



# 2021-2024 GAP II

## AMBITION

Consolidate Informa's leadership positions in B2B Markets and Academic Markets through strong underlying growth and targeted additions in B2B Events, B2B Market Access and Open Research

## GROWTH

Ambition to exceed rebased 2019 revenue by 2024, with scenario upside depending on the level of reinvestment in M&A

## TALENT

Build a world class data and digital talent capability to support accelerated Digital Services growth in two leadership businesses

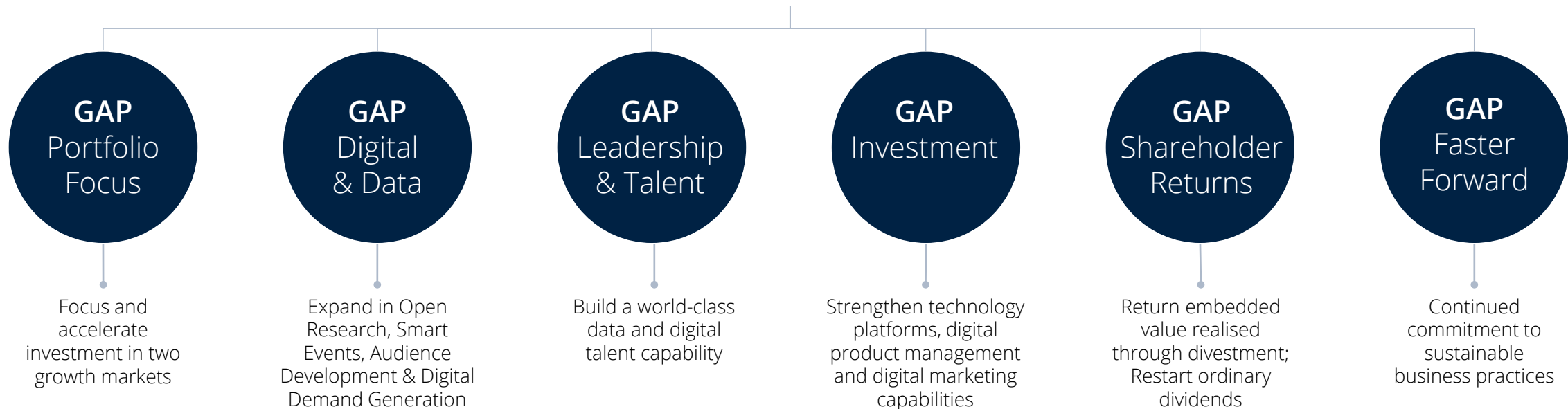
## RETURNS

£1bn of embedded value returned to shareholders post full sale and completion, combined with reinvestment for further growth and scale in two leadership businesses;  
Resumption of ordinary dividends in 2022

Informa's Sustainability Commitments:

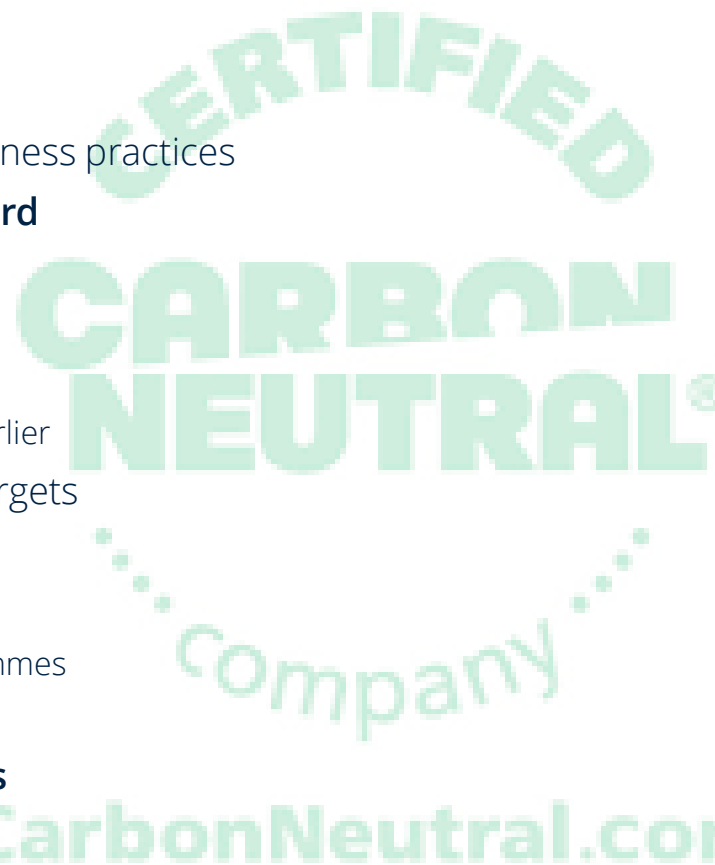
***FASTER***  **FORWARD**

# 2021-2024 Growth Acceleration Plan II



# Early and long-term operational commitment to sustainability

- Long-term commitment to sustainable business practices
- Group commitments through **FasterForward**
  - Carbon Neutral Company today
  - Carbon Neutral Publications by 2024
  - Carbon Neutral Events by 2025
  - Zero Waste and Net Zero Carbon by 2030 or earlier
- Sustainability embedded within all GAP II targets
- **B2B Markets & Digital Services**
  - Net Zero Carbon Events Pledge
  - Informa Fundamentals & Better Stands programmes
  - B2B Events as a consolidator of carbon
- **Academic Markets & Knowledge Services**
  - Carbon Neutral Print Books & Journals today



ESG Ratings

Member of  
**Dow Jones**  
**Sustainability Indices**  
Powered by the S&P Global CSA

**No 1**  
Globally in Media Sector

  
DISCLOSURE INSIGHT ACTION

**A-**  
2020 rating

  
SCIENCE BASED TARGETS  
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

**+1.5°**  
Verified targets

**MSCI**  
ESG RATINGS

**AA**  
2021 rating

Continued commitment to sustainable business practices

# *FASTER* FORWARD

Accelerating sustainable change in our business  
and the specialist markets we serve.

## Faster to Zero

Moving faster to become  
a zero waste and net zero  
carbon business.

## Sustainability Inside

Embedding sustainability  
inside every one of our brands  
to help our customers accelerate  
sustainable development in their  
specialist markets.

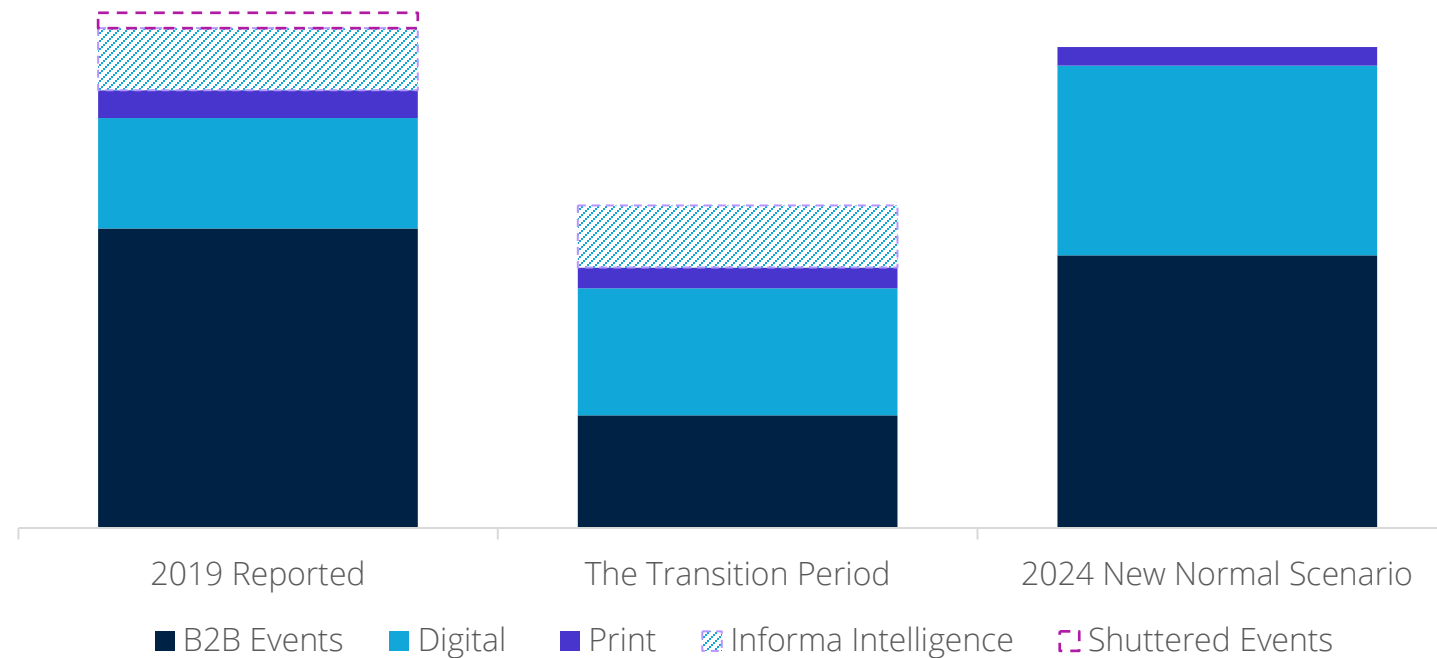
## Impact Multiplier

Multiplying the positive impact  
we create when we improve  
access to knowledge, help people  
connect more efficiently and invest  
in our communities.

### FASTER FORWARD CORE COMMITMENTS:

1. Become carbon neutral as a business and across our products by 2025
2. Halve the waste generated through our products and events by 2025
3. Become zero waste and net zero carbon by 2030 or earlier
4. Embed sustainability inside 100% of our brands by 2025
5. Help and promote the achievement of the UN's Sustainable Development Goals through our brands
6. Enable one million disconnected people to access networks and knowledge by 2025
7. Contribute \$5bn per year in value for our host cities by 2025
8. Contribute value of at least 1% of profit before tax to community groups by 2025
9. Save customers more carbon than we emit by 2025

# GAP II: New Informa Group - New Normal Scenario (ex Intelligence)



2024 revenue ahead of 2019 (rebased)

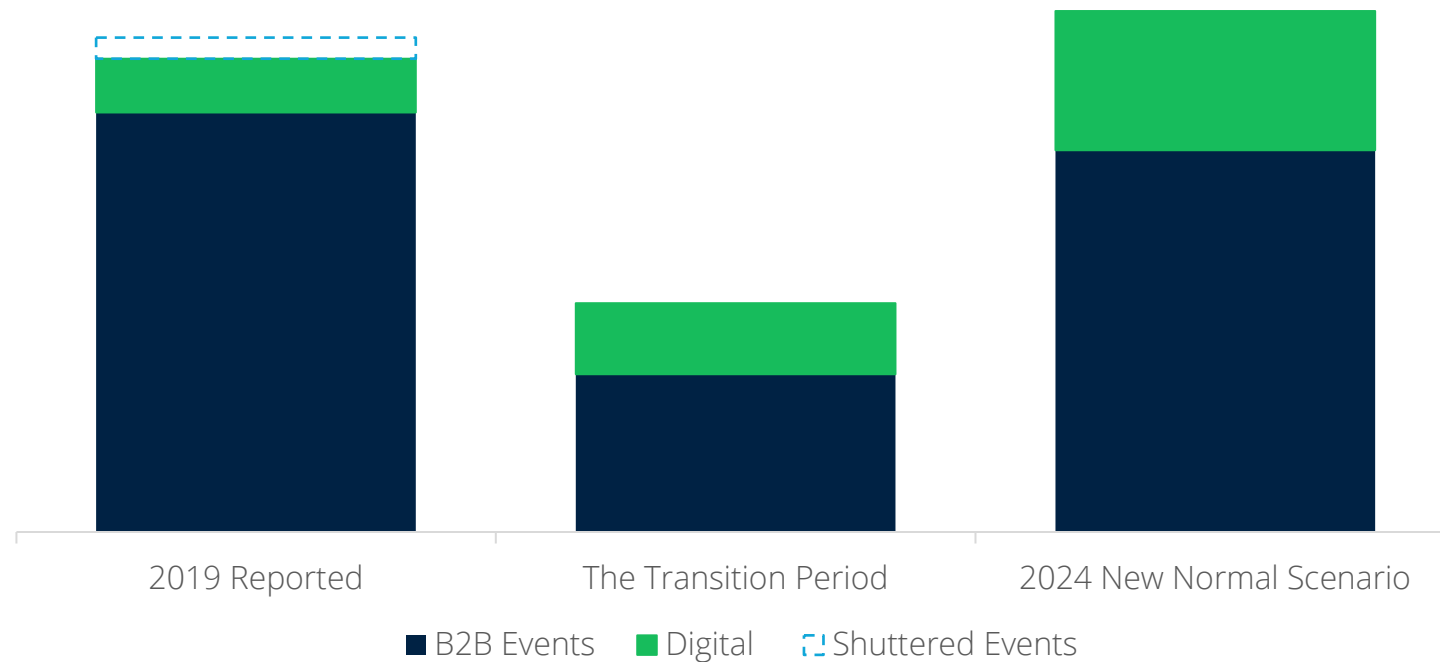
GAP II delivers accelerated digital growth (40%+ of revenue by 2024)

Shuttering impact absorbed

Higher growth, higher quality

**Increased scale, increased quality and faster growth**

## GAP II: B2B Markets - New Normal Scenario



2024 revenue ahead of 2019

GAP II delivers accelerated digital growth  
(25%+ revenue by 2024)

Shuttering impact absorbed

Higher growth, higher quality

**Increased scale, increased quality and faster growth**

# The enduring strength & power of B2B events in 2021



300+

Events run in 2021



32k

Exhibitors at physical events in 2021



30+

Countries where physical events ran in 2021



2m

NSQM of exhibition space in 2021



1.6m+

Attendees at 2021 physical events



75%

Cash collected of 2022 Q1 bookings

25%

Improvement in attendee to exhibitor ratio to Oct 21 versus 2019





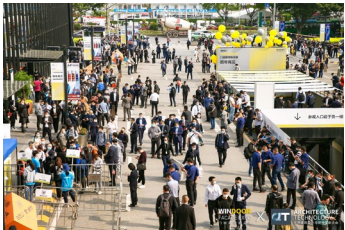
# Improving trends through the Transition Year

All featured  
events 85%+

## Mainland China

- 44 events run in 2021
- 17 events with revenue > 85% of 2019
- Limited international participation

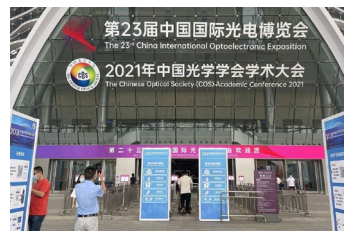
Windoer (March)



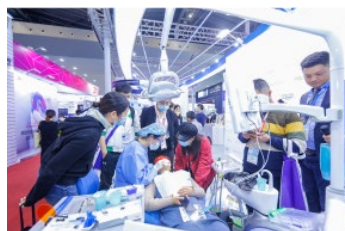
China Beauty (May)



CIOE (September)



Dentech (November)



## North America

- 118 events run in 2021
- 16 events with revenue > 85% of 2019
- Limited international participation

Megacon (August)



Battery Show (September)



Farm Progress (September)



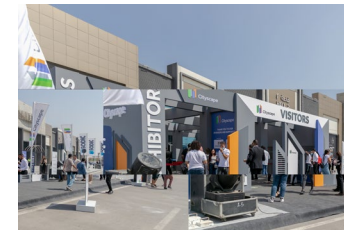
Channel Partners (Nov)



## Rest of World

- 171 events run in 2021
- 35 events with revenue > 85% of 2019
- Limited international participation

Cityscape Egypt (September)



AMWC (September)



Vitafoods (October)



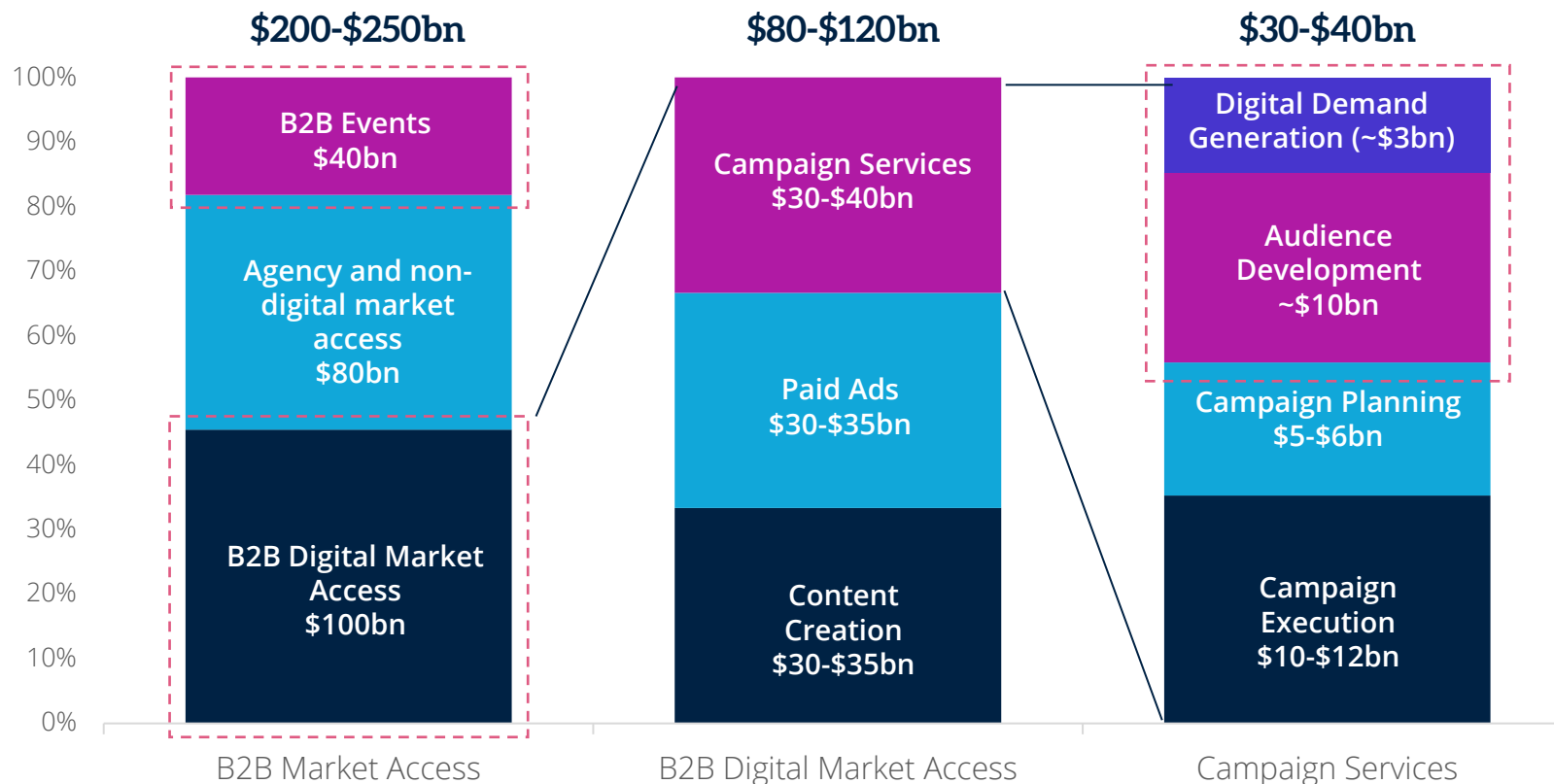
SuperReturn (November)



**2021 Face-to-Face Event Revenue of £600m+**  
**2021 Pro-forma Face-to-Face Event Revenue £850m± (on full portfolio and without localised spot disruption)**

# Accelerate expansion from B2B Events to B2B Market Access

## From B2B Events to B2B Market Access



Opportunity to further expand in B2B Market Access

First Party Data and trusted brands

Building on existing strengths in Audience Development

Investing in new capabilities in Digital Demand Generation

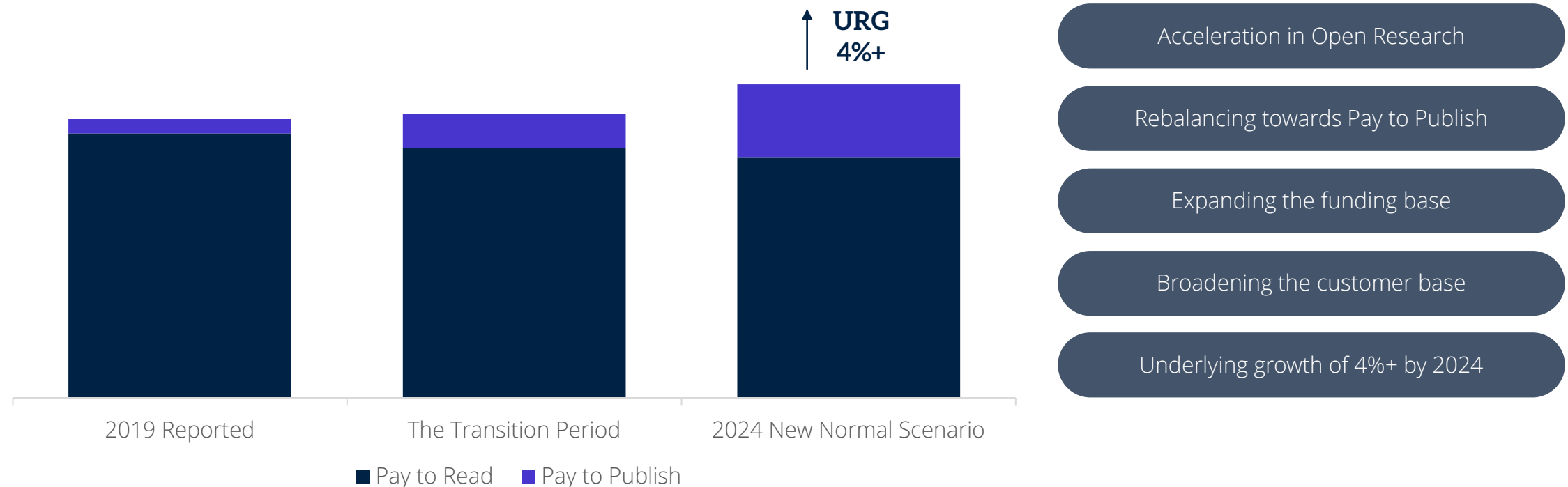
Incremental growth opportunities

# Growth Acceleration: B2B Events and B2B Market Access



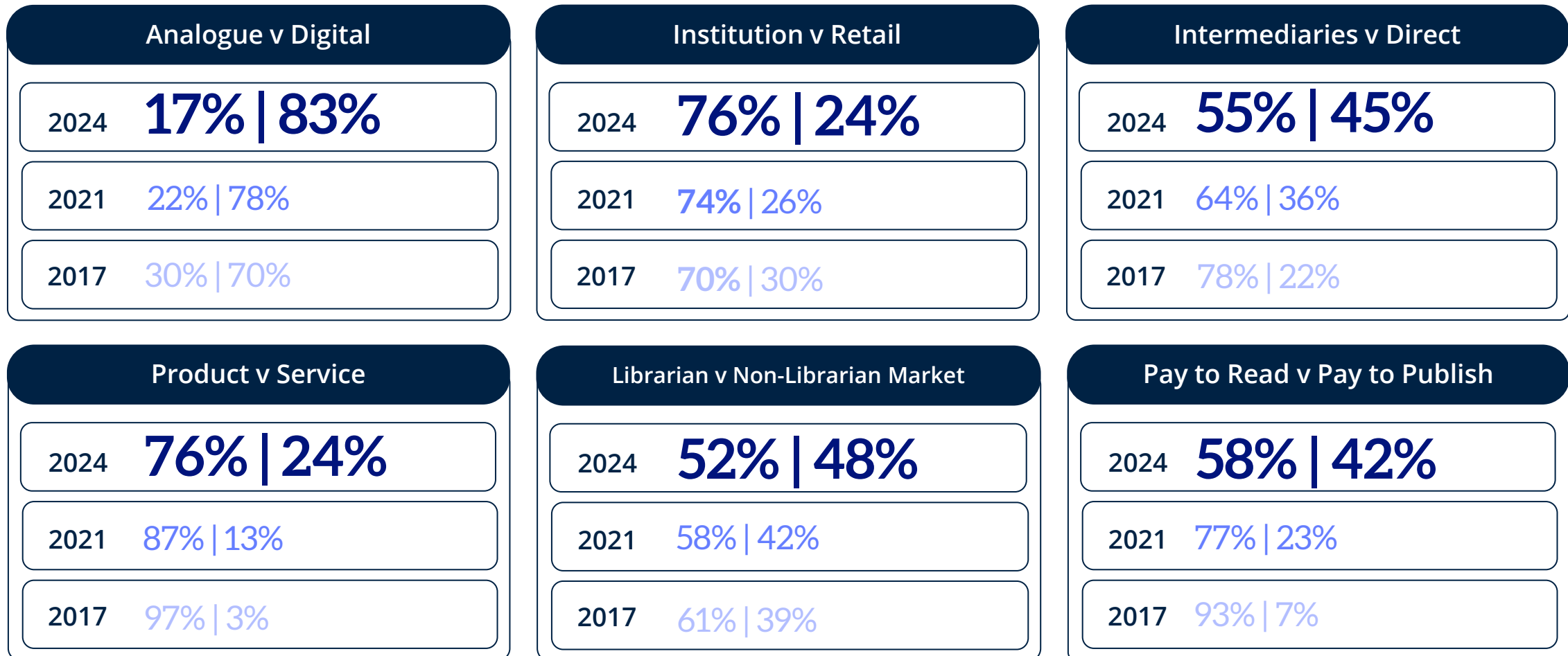
Proprietary Data, Proprietary Technology, Proprietary Capability

# GAP II: Academic Markets underlying growth doubling by 2024

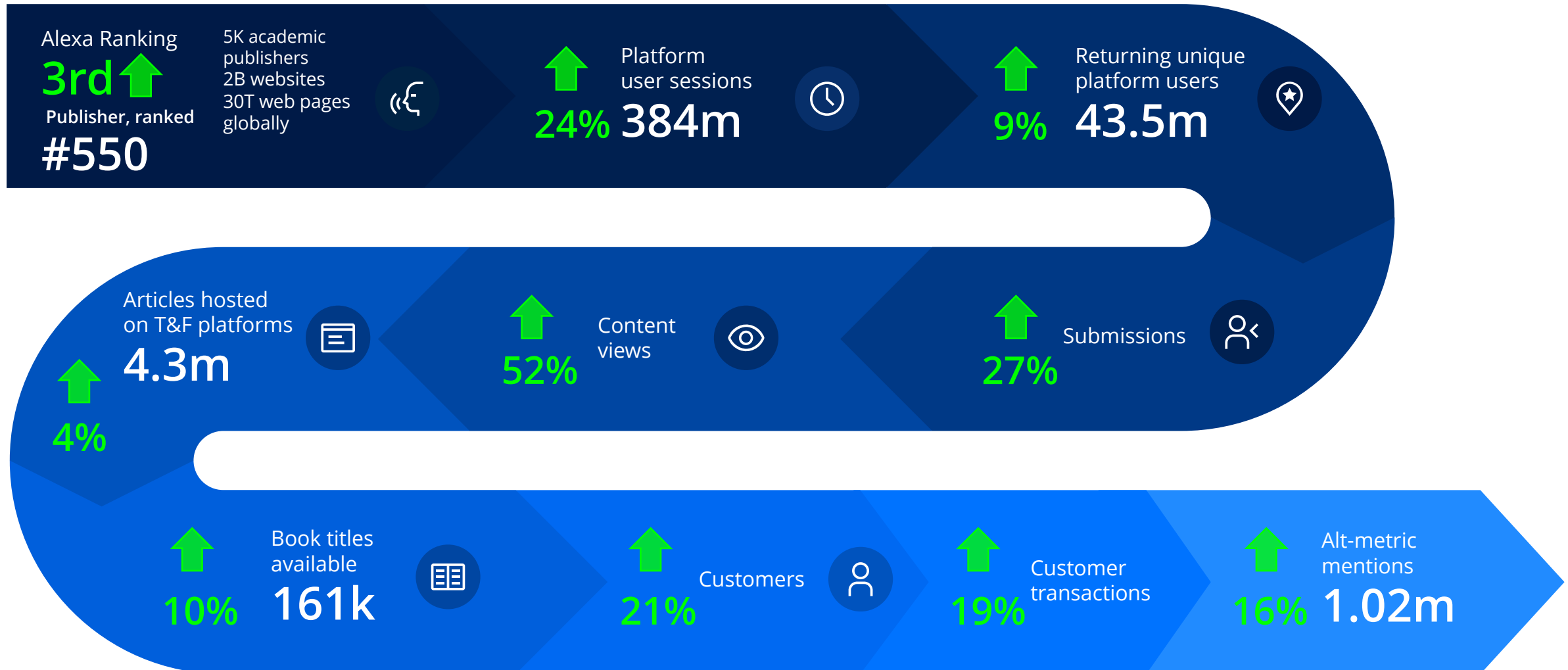


**Increased scale, increased quality and faster growth**

# Growth Acceleration: Further expansion in Open Research Services

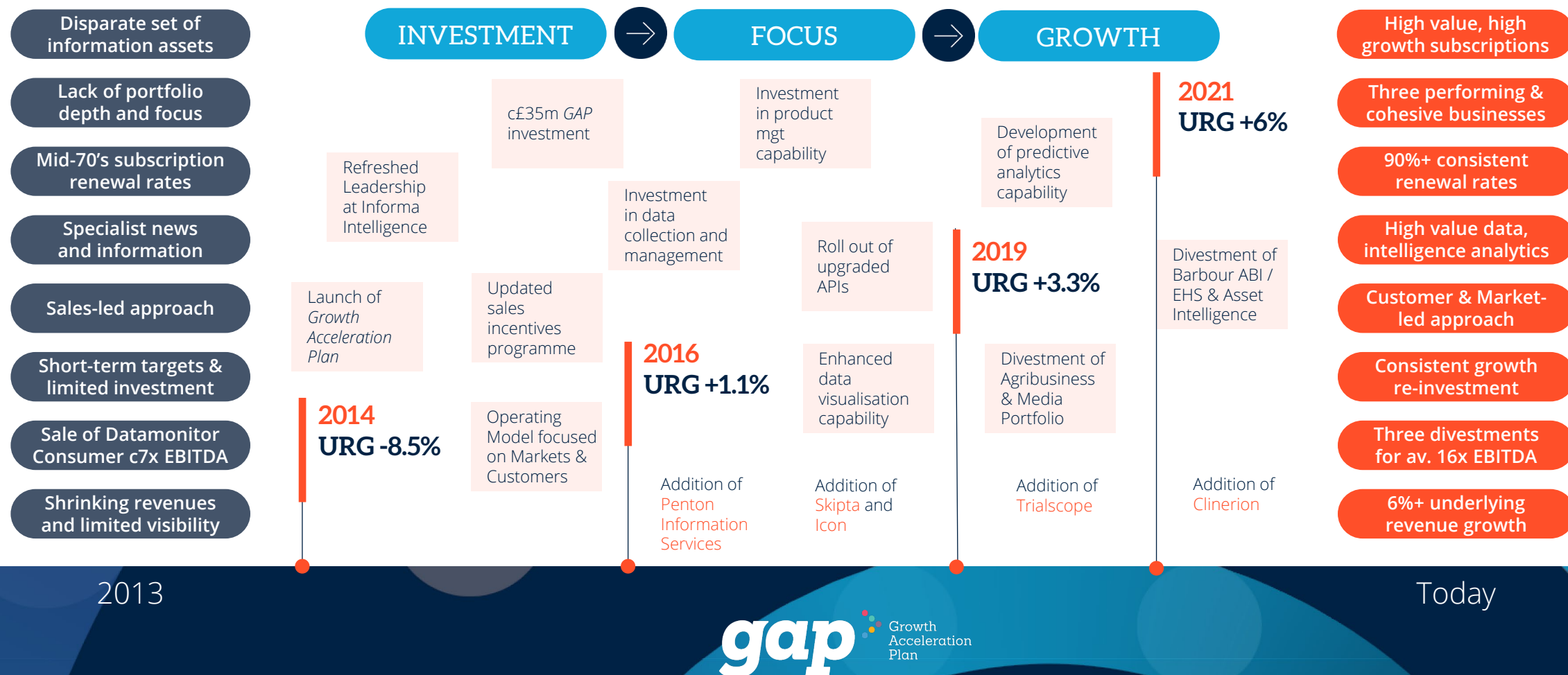


# Digital First Future at Taylor & Francis





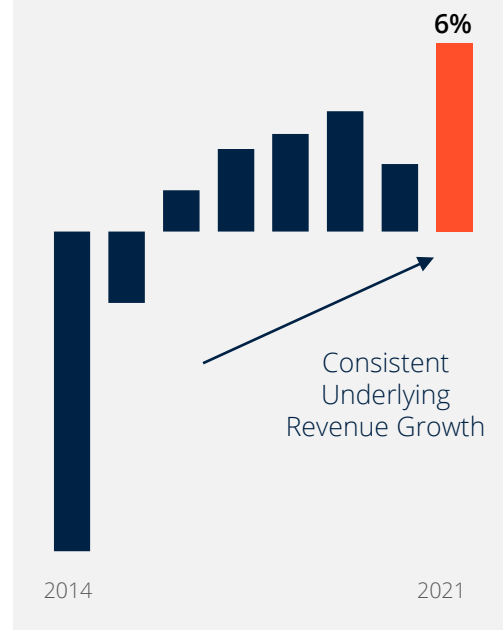
# Creating value in Informa Intelligence through GAP I



# High quality, high value specialist data and intelligence



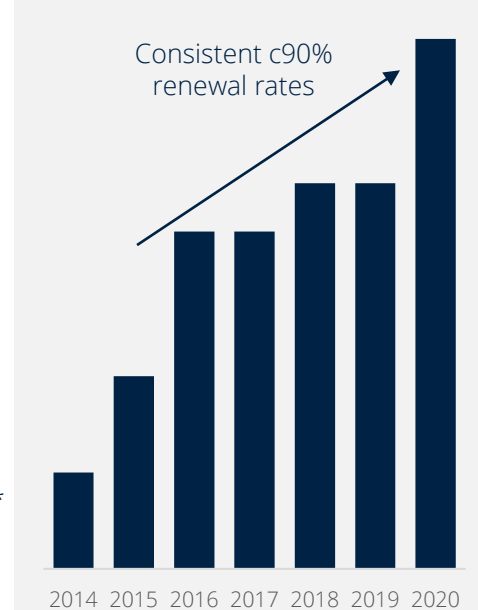
## Strong Underlying Growth



## Specialist Data

- ✓ Specialist data and information
- ✓ Subscriptions-based
- ✓ 3 category specific sub-vertical businesses
- ✓ High quality, high growth, high value portfolio
- ✓ 2022 consensus revenue c.£325m\*
- ✓ 2022 consensus adjusted operating profit c.£100m\*

## Predictable Revenues



## Specialist Brands

### 1. Clinical Trials



### 2. Vessel Tracking



### 3. International Fund & Income Flows



## High Quality Revenues



- Subscription
- Marketing Services
- Other

A high quality and high performing portfolio



# Unlocking value and increasing portfolio focus through divestment

## FOCUS

Focus the Informa Group on two growth businesses with leadership positions of scale: **B2B Markets** and **Academic Markets**

## DIVEST

Divestment of all three **Informa Intelligence** businesses: **Clinical Trials**, **Vessel Tracking**, **International Fund & Income Flows**

## VALUE

Balance sheet embedded carrying value for three businesses of c.£1 bn; Confident of achieving multiple ahead of average for recent divestments of *Barbour EHS*, *Barbour ABI* and *Asset Intelligence* (16x EBITDA);

## RETAIN

Intention to retain *Curinos* joint venture investment in Retail Banking

## TIMING

Divestment process expected to run through H1 2022 with Buyback programme likely to run into H1 2023; Significant unsolicited interest already received

## Divestment of Informa Intelligence

# Accelerating shareholder returns

## Divestment Returns

- £1bn of embedded value to be returned **upon full sale and completed divestment of Informa Intelligence**
- Return in line with current balance sheet carrying value
- Capital returned via the combination of a **Special Dividend** and a **Share Buyback Programme**
- Remaining proceeds used for growth investment and to further de-lever the balance sheet

## Annual Returns

- 2021 Free Cash Flow of £325m+
- Net debt / EBITDA c.3x by year-end 2021
- Ordinary Dividends to resume in 2022
- 2022 Revenue expectations of £2.2bn to £2.4bn (including Informa Intelligence)
- 2022 Balance Sheet strengthened post divestment

**One-off capital return of £1bn\*; Resumption of annual dividends from 2022**

# 2021-2024 GAP II

New Informa:  
Accelerated Growth & Returns

Gareth Wright  
Group Finance Director

# Accelerating growth and returns through GAP II

## GROWTH

Ambition to return to rebased 2019 revenues by 2024, with a better quality mix and faster growth trajectory

## FOCUS

Divestment of Informa Intelligence to focus on two leadership businesses of scale

## RETURNS

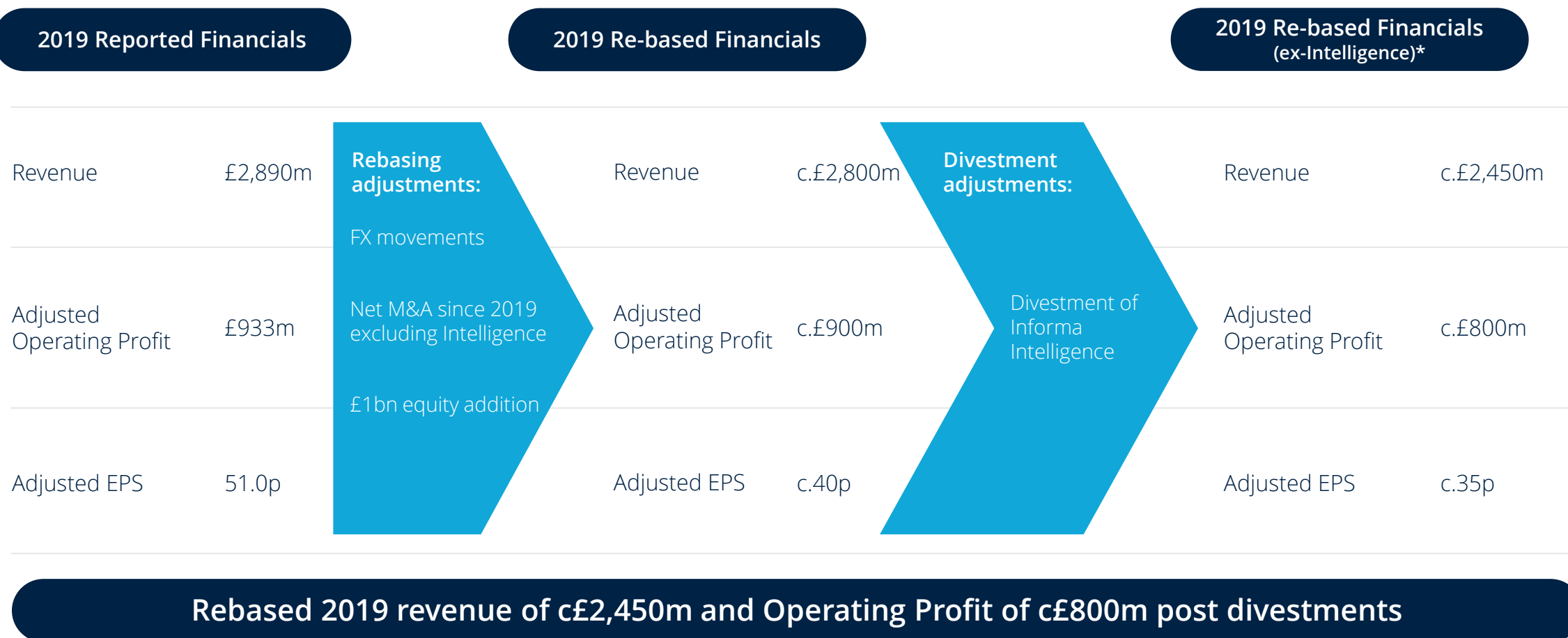
Subject to full sale and completion, return £1bn of embedded value realised through divestment to shareholders through a special dividend and share buyback programme; Restart Ordinary Dividends paid out of free cash flow from H1 2022

## EXPAND

Redeploy growing free cash flow both internally into *GAP II* and externally into targeted M&A, further accelerating growth in two leadership businesses

**2021-2024 Accelerated Growth and Performance**

# GAP II: 2021-2024 Growth & Acceleration Scenarios

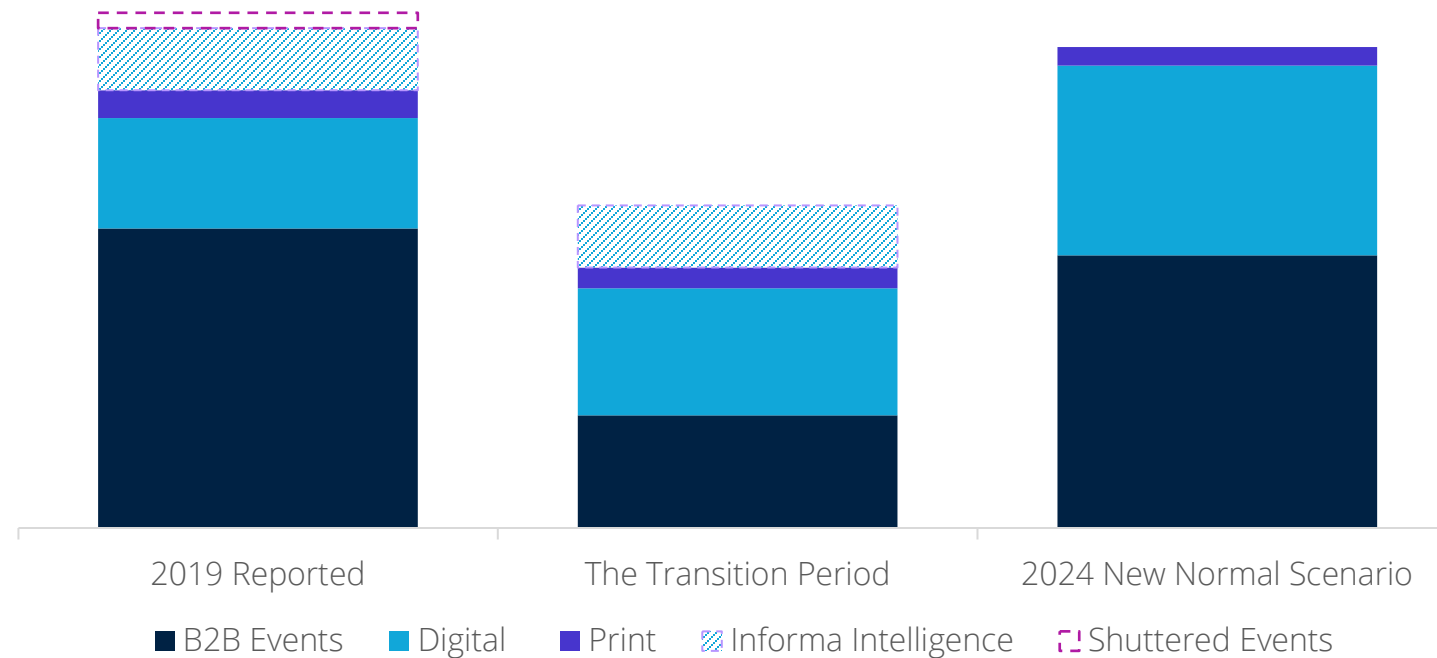


# GAP II: 2021-2024 Growth & Acceleration Scenarios



**New Normal Scenario sees revenue exceed 2019 levels by 2024**

# GAP II: New Informa Group - New Normal Scenario (ex Intelligence)

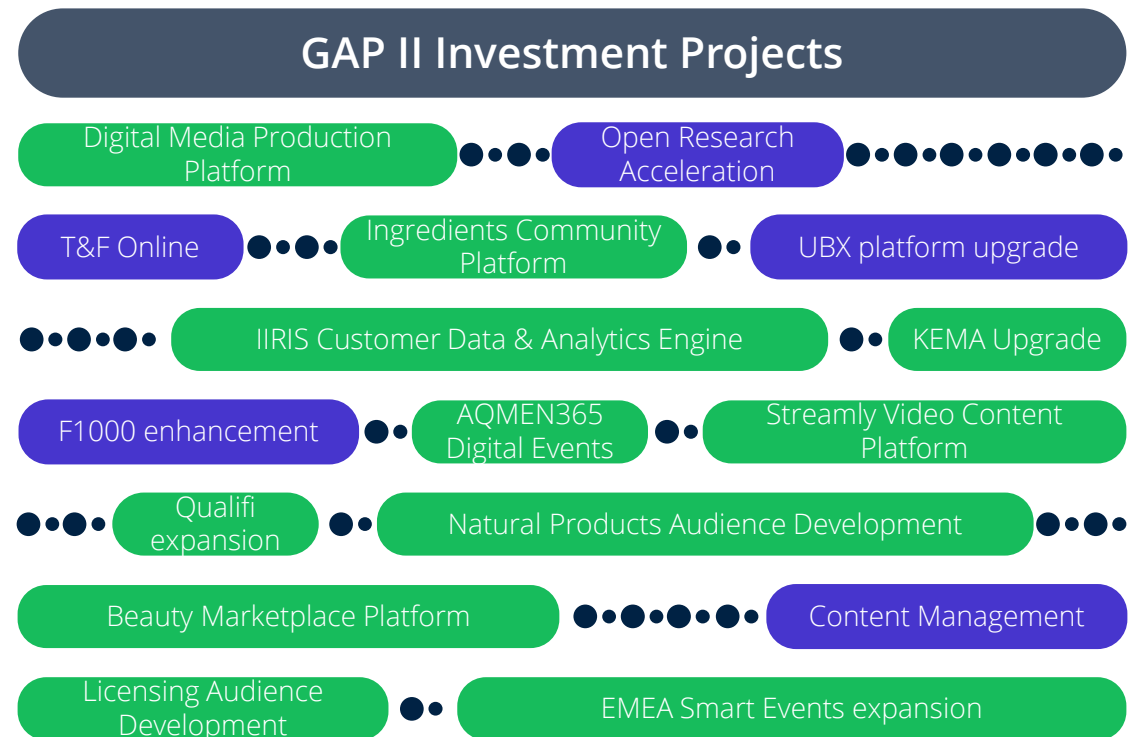


- 2024 revenue ahead of 2019 (rebased)
- GAP II delivers accelerated digital growth (40%+ of revenue by 2024)
- Shuttering impact absorbed
- Higher growth, higher quality

**Increased scale, increased quality and faster growth**

# GAP II Investment to accelerate digital growth

- *GAP II* net investment of up to £150m in 2021-2024
- Projects focused on growth acceleration in two leadership businesses
- Builds on *GAP I* investment focus:
  - Data management
  - Product management expertise
  - Digital product development
  - Digital marketing enablement
  - Digital content production and management
- *GAP II Investment Council* for project sign-off and governance
- Benefits tracking and stage-gate funding model, mirroring *GAP I*



**Investment in data capability and digital acceleration**



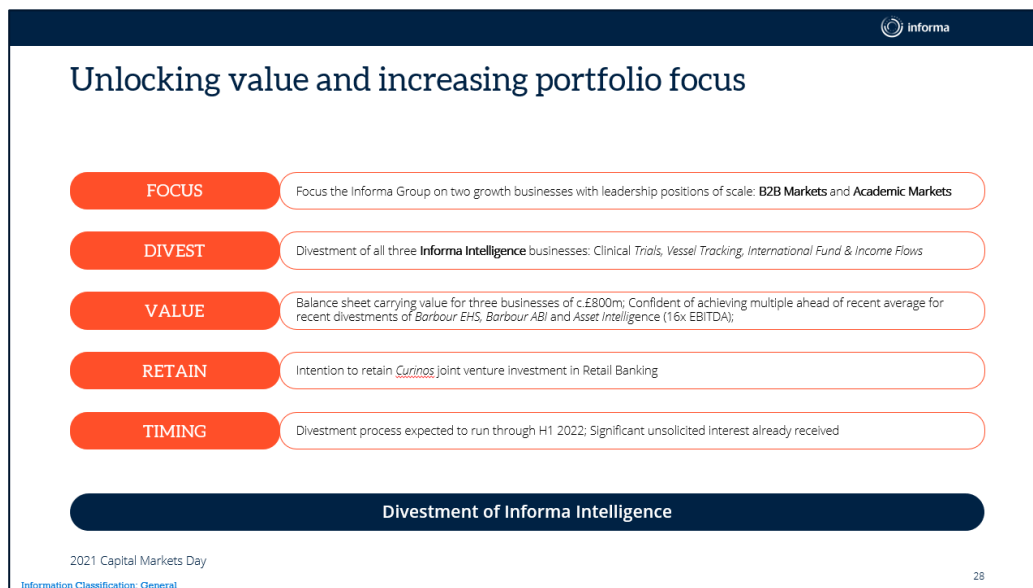
# GAP II investment returns from 2024

- GAP net investment of up to £150m expected to be split c.80%/20% Capex/Opex
- Front end loaded, with expected phasing of investment of c.50% / 30% / 20% across 2022-2024
- Underpinning digitisation of events, platform and technology capabilities
- Target incremental revenue benefits of £200m± by 2024
  - **Open Research** acceleration
  - Full **Smart Events** deployment
  - Expansion of **Audience Development** across verticals
  - New products and services in **Digital Demand Generation**
- Target for positive and growing operating profit contribution by 2024

**Growing revenue and operating profit contribution from GAP II investment by 2024**

# Divestment Returns and Growth Investment

## Divestment Process expected to run through H1 2022



**Unlocking value and increasing portfolio focus**

- FOCUS** Focus the Informa Group on two growth businesses with leadership positions of scale: **B2B Markets** and **Academic Markets**
- DIVEST** Divestment of all three **Informa Intelligence** businesses: *Clinical Trials*, *Vessel Tracking*, *International Fund & Income Flows*
- VALUE** Balance sheet carrying value for three businesses of c.£800m; Confident of achieving multiple ahead of recent average for recent divestments of *Barbour EHS*, *Barbour ABI* and *Asset Intelligence* (16x EBITDA);
- RETAIN** Intention to retain *Curinos* joint venture investment in Retail Banking
- TIMING** Divestment process expected to run through H1 2022; Significant unsolicited interest already received

**Divestment of Informa Intelligence**

2021 Capital Markets Day  
Information Classification: General

## Use of Proceeds (subject to full sale, completion & proceeds)

- £1bn embedded value realised through divestment to be returned to Shareholders
  - Special Dividend
  - Share Buyback Programme
- Provide funds for growth investment
  - *GAP II* Investment Programme
  - Targeted M&A to further accelerate growth in B2B Events, Audience Development, Digital Demand Generation and Open Research Services
- Strong and robust balance sheet

Share embedded value with shareholders; Provide funds for growth investment

# 2021-2022 Short-term financial guidance

## 2021 Guidance

- Revenue: £1,800m±
- Adj Operating Profit: £375m±
- Free Cash Flow: £325m+
- Net debt / EBITDA: 3x±

## 2022 Guidance\*\* (Inc. Informa Intelligence)

- Revenue: £2,200m – £2,400m
- Adj Operating Profit: £520m – £540m
- Peak investment year for GAP II
- £15m impact from SaaS capex accounting change\*

## 2022 Guidance \*\*\* (Ex-Informa Intelligence)

- Revenue: £1,875m – £2,075m
- Adj Operating Profit: £420m – £440m
- £1bn Divestment Returns through 2022/2023, subject to full sale, completion and proceeds
- Ordinary Dividends resume from H1 2022 @ c30% payout

**£1bn Divestment Returns; Resumption of annual dividends from H1 2022**

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Stephen A. Carter  
Group Chief Executive

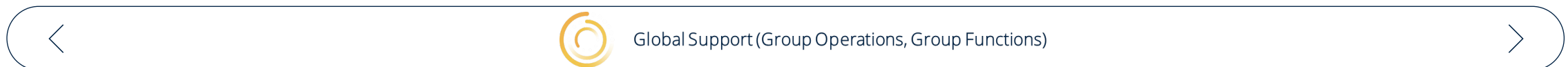
# New Informa



## B2B Markets & Digital Services



## Academic Markets & Knowledge Services



# Q&A

# Capital Markets Day Schedule

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# Informa Capital Markets Day

2021-2024 GAP II  
B2B Markets & Digital Services

Charlie McCurdy  
Chief Executive, Informa Markets





# Today's Presenters



Stephen A. Carter

Group CEO



Gareth Wright

Group Finance Director



Charlie McCurdy

CEO, Informa Markets



Max Gabriel

President , IIRIS



Annie Callanan

CEO, Taylor & Francis

# New Informa

## B2B Markets & Digital Services



# The enduring strength & power of B2B events in 2021



300+

Events run in 2021



32k

Exhibitors at physical events in 2021



30+

Countries where physical events ran in 2021



2m

NSQM of exhibition space in 2021



1.6m+

Attendees at 2021 physical events



75%

Cash collected of 2022 Q1 bookings

25%

Improvement in attendee to exhibitor ratio to Oct 21 versus 2019

# Accelerating performance of major B2B brands

## Performance of B2B Markets Power Brands compared to 2019

| Revenue 2021 v 2019 | Mainland China | North America | Middle East | Europe | ASEAN & Hong Kong | Performance correlated to reopening    |
|---------------------|----------------|---------------|-------------|--------|-------------------|----------------------------------------|
| <50%                | 0              | 10            | 3           | 5      | 2                 | Location / Market confidence           |
| 50%-70%             | 1              | 14            | 1           | 2      | 0                 | On-cycle / Off-cycle dates             |
| 70%-90%             | 2              | 7             | 0           | 2      | 0                 | Short / Long sales cycle               |
| 90%+                | 7              | 3             | 2           | 3      | 0                 | Domestic / International participation |
| Total               | 10             | 34            | 6           | 12     | 2                 | Bookings carried over from 2020        |
| Average Performance | 90%+           | c45%          | c50%        | c55%   | <15%              |                                        |

Average performance over 50% versus 2019, with multiple factors affecting individual brands

# Strong customer demand for face-to-face events

## ●● Business Development

Vitafoods Europe is a great venue to meet all of our customers, especially after COVID. We have met new companies interested in our industry and we made great deals that we expect to convert into good business in the near future

*Vitafoods Europe, Health & Nutrition*

## ●● Networking

A must attend event for anyone in the Asset Management Industry. Excellent speakers and great networking opportunities.

*IM Power, Global Finance*

## ●● Localities

Arab Health is sending a message to the whole world that Dubai is safe, it's open for everyone, and we succeed as a health care industry with Arab Health bringing all these exhibitors from all over the world—it's a huge success to all of us

*Arab Health, Healthcare*

## ●● Hybrid+

You pulled off a great hybrid event that was both meaningful in-person with reduced footprint and attendance (but more engaged, enthusiastic attendees) and with virtual sessions. The quality of the leads we generated as a vendor were very high

*Black Hat, Cyber Security*

## ●● Industries

China Beauty Expo (CBE) shared global innovation resources, with both Chinese characteristics and a global vision. It fully demonstrated the new look and sustained vitality of the beauty industry post-pandemic.

*China Beauty, Beauty*

## ●● Value for SMEs

It's exciting to get out to see and touch the newest equipment, but also to interact with not only exhibitors but fellow farmers.

*Farm Progress, Agriculture*

## ●● New Product Launches

This is my first World of Concrete as our company is entering this industry from trucking, we source mobile technology for blue collar professionals. I attend many events each year and determine which ones based on the demographics of the audience; here has been a good fit of influences, decision makers and owners.

*World of Concrete, Construction*

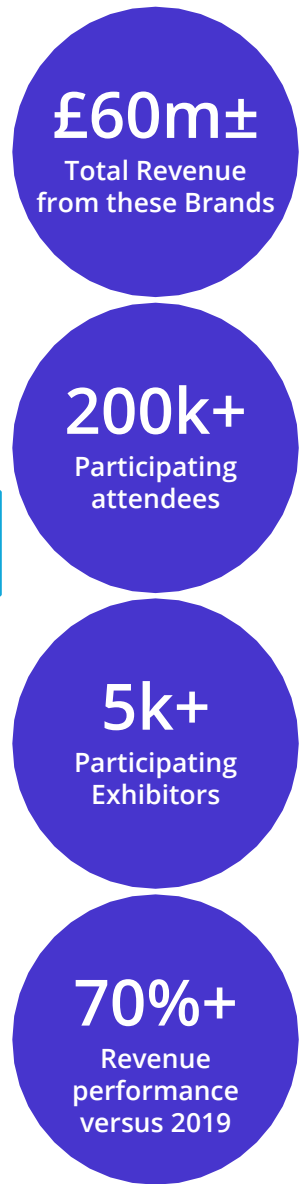
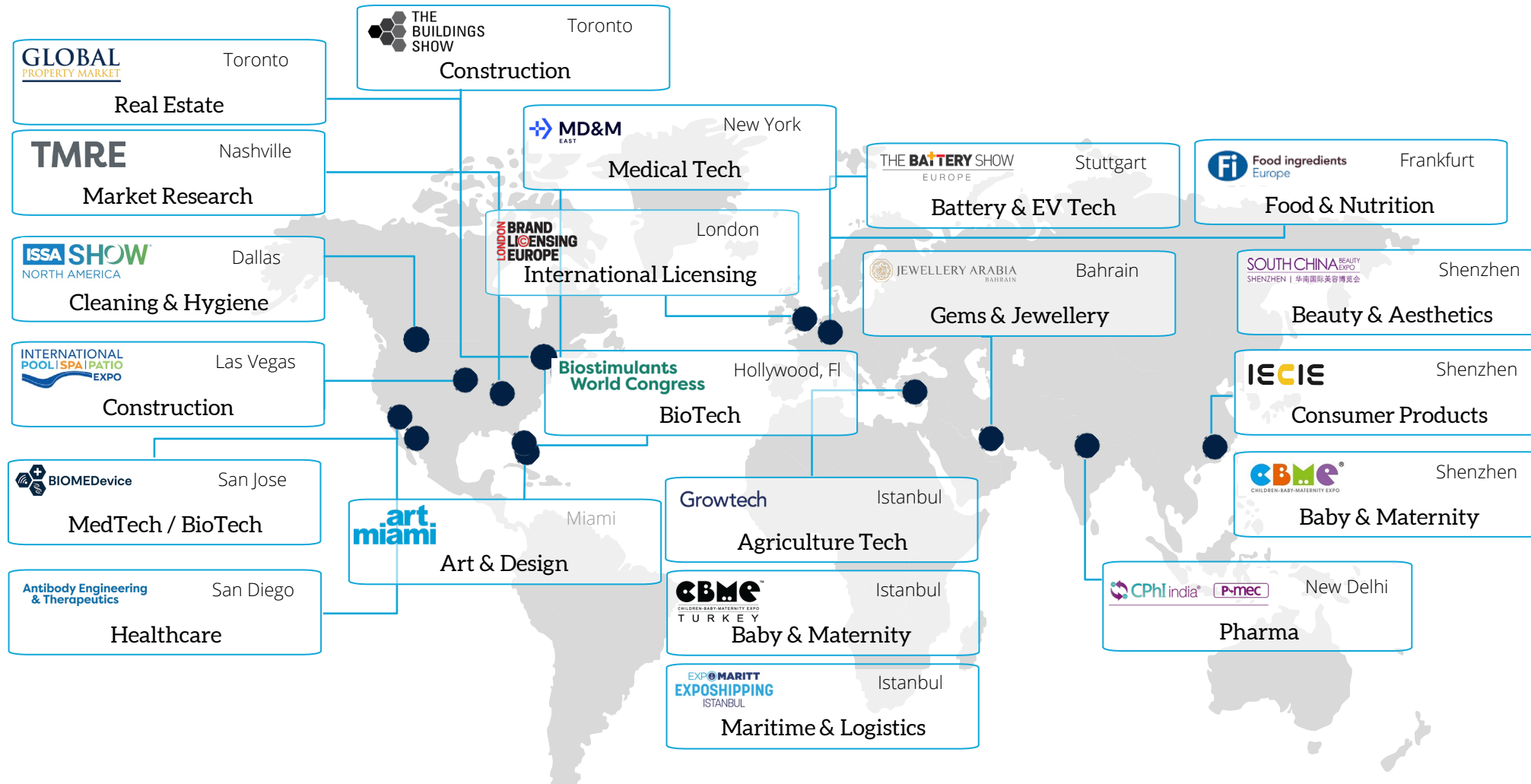
## ●● Targeted Meetings

Over the course of 4 days, I managed to secure 47 1:1 meetings with individuals perfectly matching my target profile. Besides the efficiency of networking throughout the daytime schedule, a huge effort was made in delivering bespoke networking evenings for attendees.

*SuperReturn International, Global Finance*

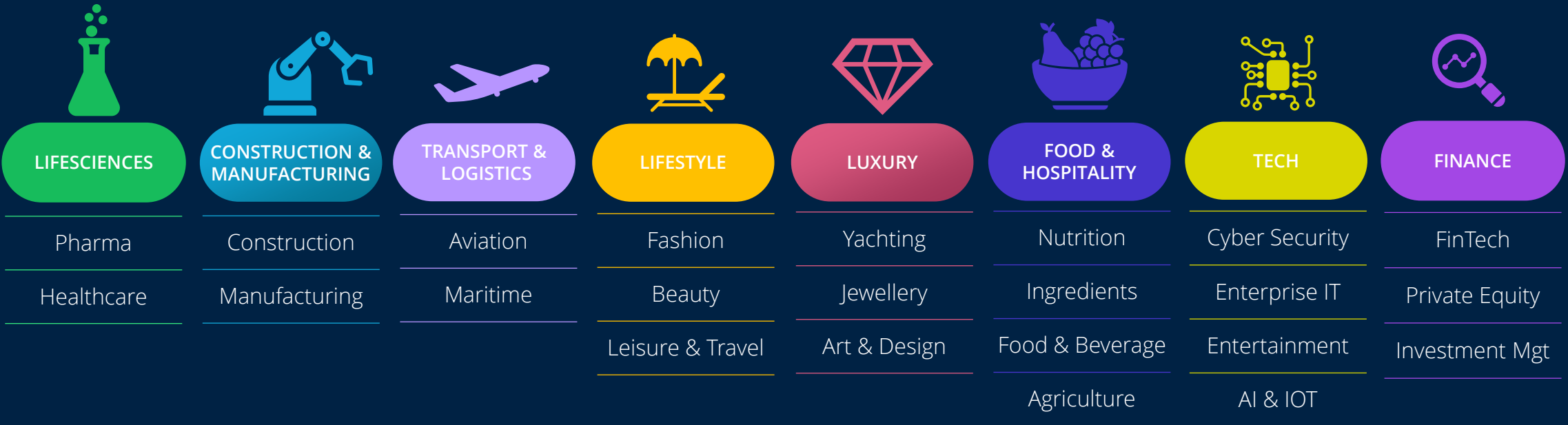
**Power of B2B trade shows remains strong and is enhanced by smart technology**

# Three weeks in the life of Informa B2B Markets



B2B Events delivering for specialist markets all over the world

# Building further depth in targeted Specialist Markets



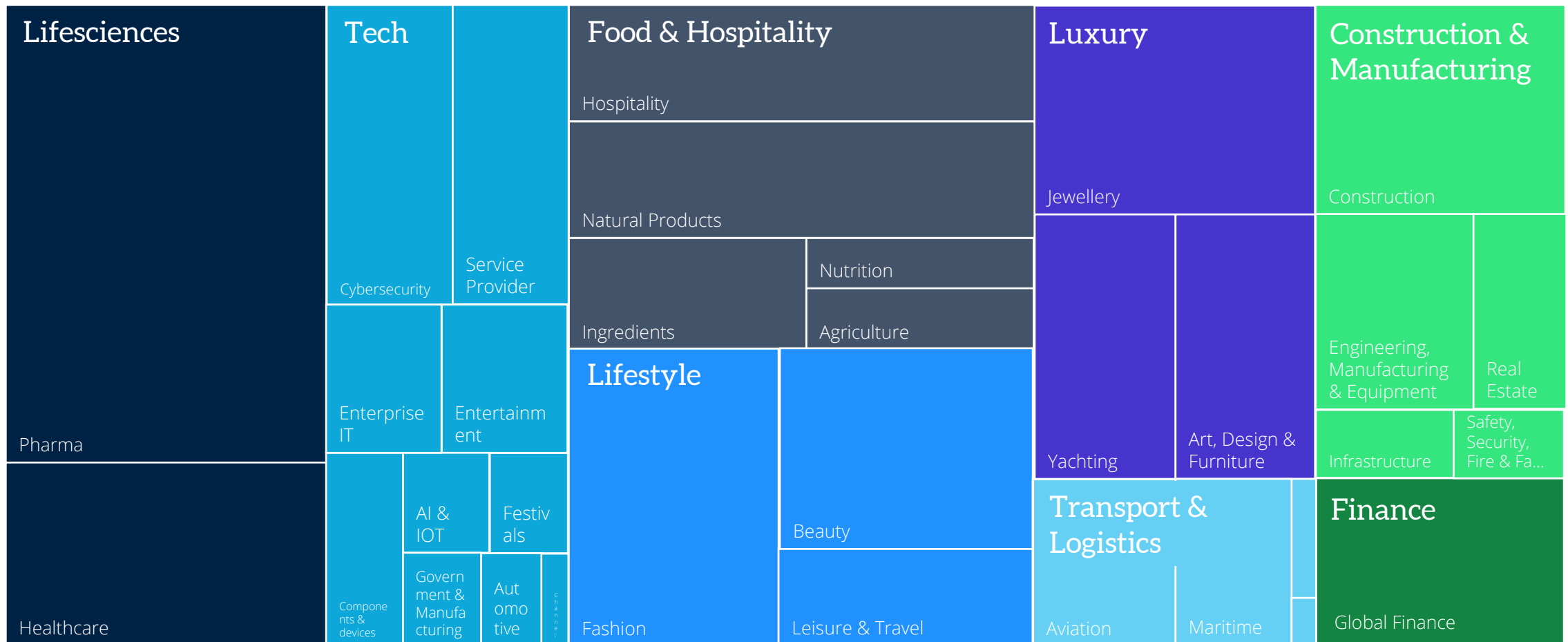
## PLATFORMS & TECHNOLOGY

**iris**

Informa's Sustainability Commitments:

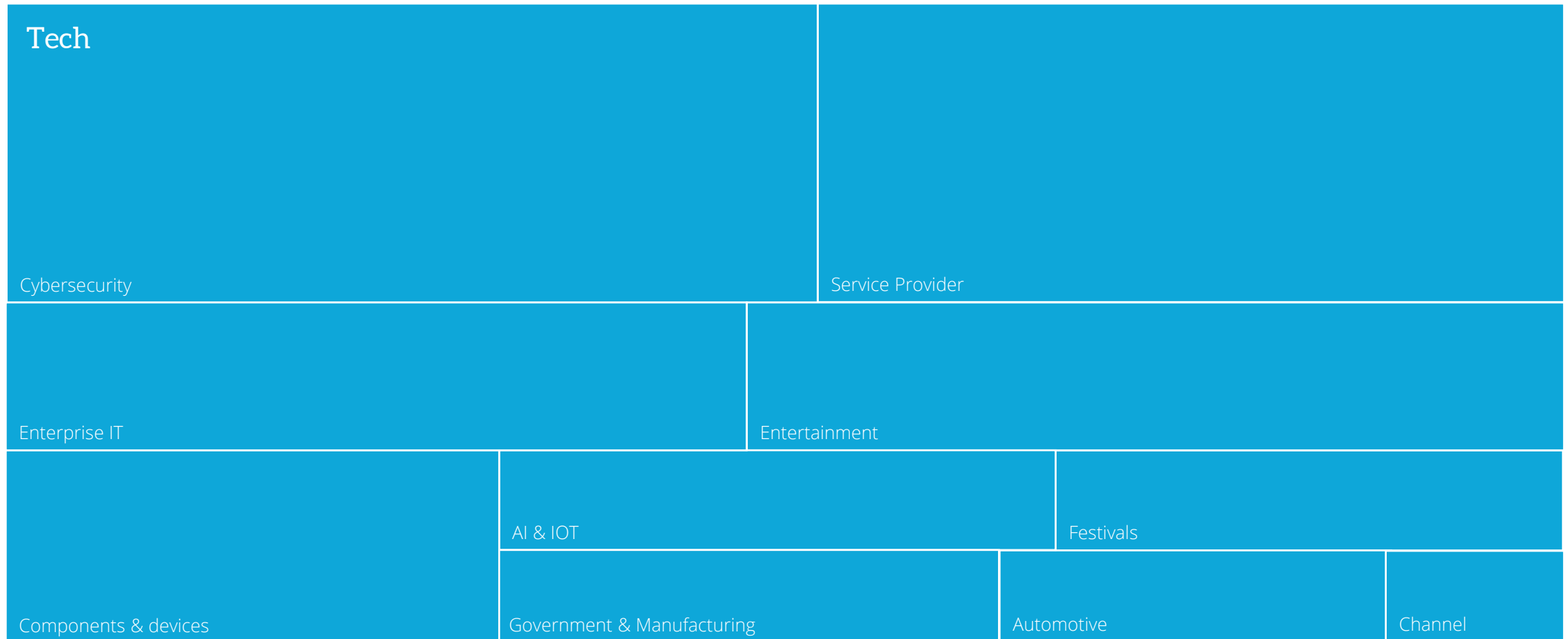
**FASTER**  **FORWARD**

# Depth in targeted Specialist Markets





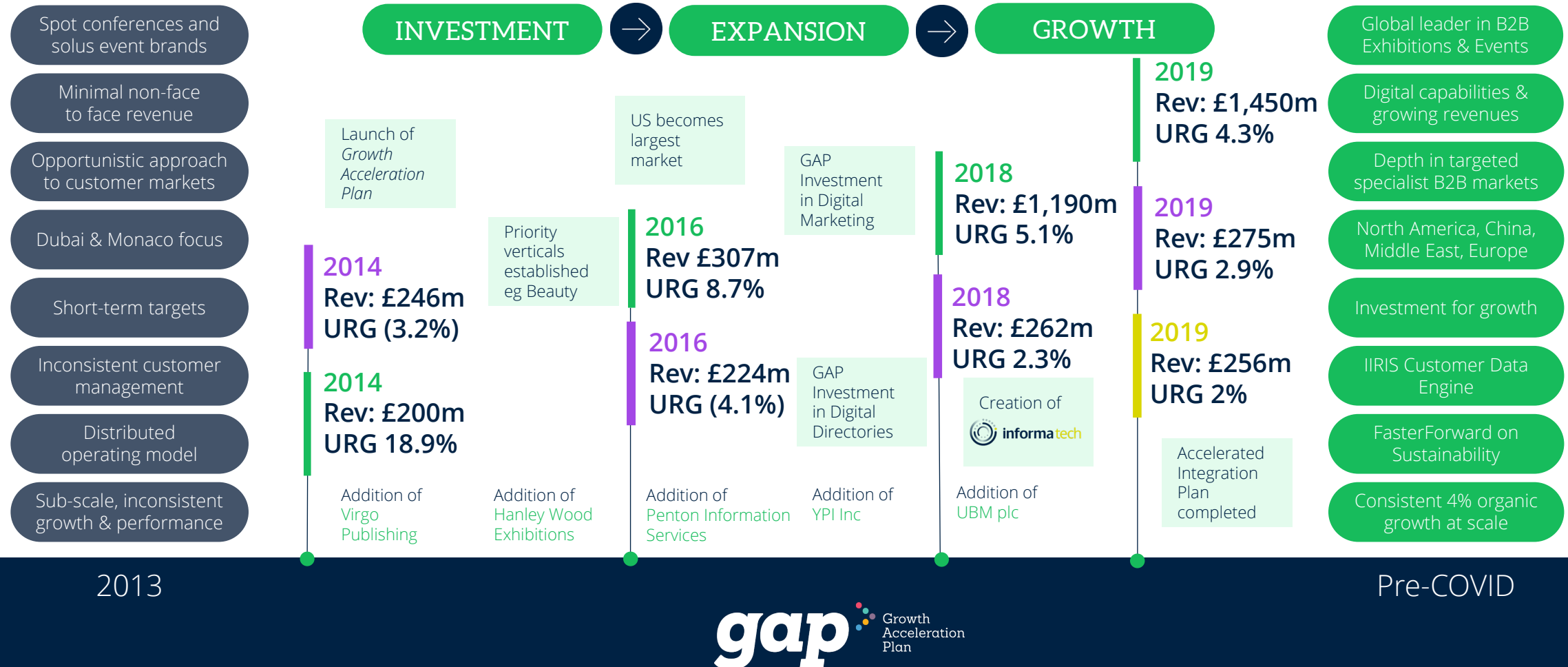
# Deep Specialist Knowledge and Connections in Tech



# Enterprise IT – Specialist Brands



# 2014-2019 GAP I: Building a leadership position in B2B Events



# 2021-2024 GAP II: B2B Markets & Digital Services

## AMBITION

1. Maximise the return and growth of B2B Events/Smart Events
2. Become a leader in B2B Market Access

## GROWTH

Target higher than 2019 revenue by 2024, with a higher quality mix and faster growth trajectory

## TALENT

Strengthen digital & data talent to complement strengths in F2F operations, sales & marketing

## RETURNS

GAP II investment to accelerate growth in B2B Events and B2B Market Access, with target for Digital Services to be 25% of revenue by 2024

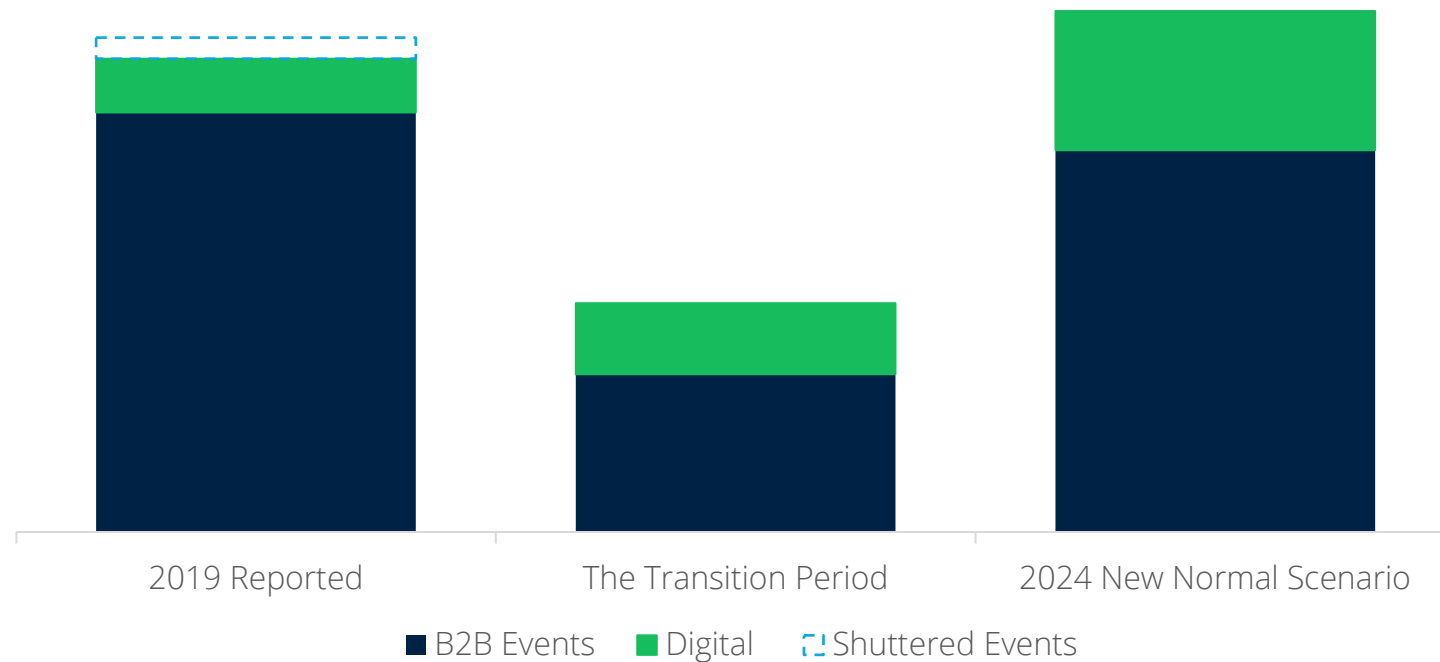
Informa's Sustainability Commitments:

*FASTER*



FORWARD

## GAP II: B2B Markets - New Normal Scenario



2024 revenue ahead of 2019

GAP II delivers accelerated digital growth  
(25%+ revenue by 2024)

Shuttering impact absorbed

Higher growth, higher quality

**Increased scale, increased quality and faster growth**

# A leader in B2B Events to a leadership position in B2B Market Access

Growth acceleration 2021-2024

1

Enduring Strength and  
power of B2B Events

Existing Market

2

Transformation from  
B2B Events into Smart Events

New Market

3

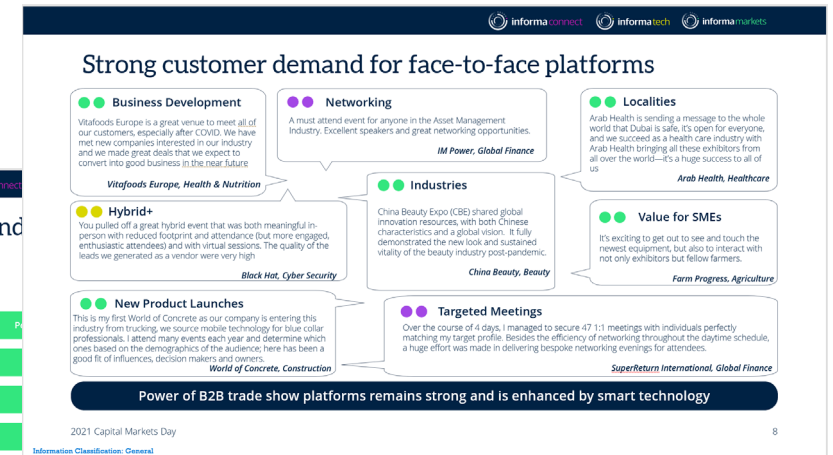
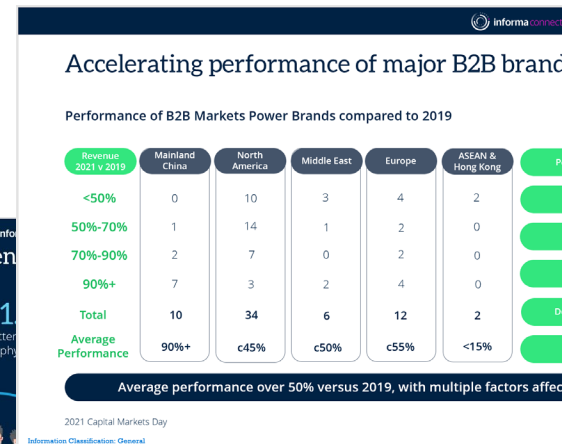
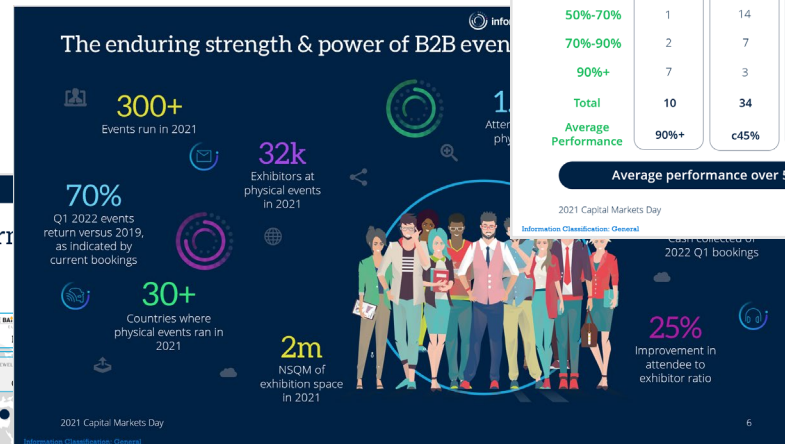
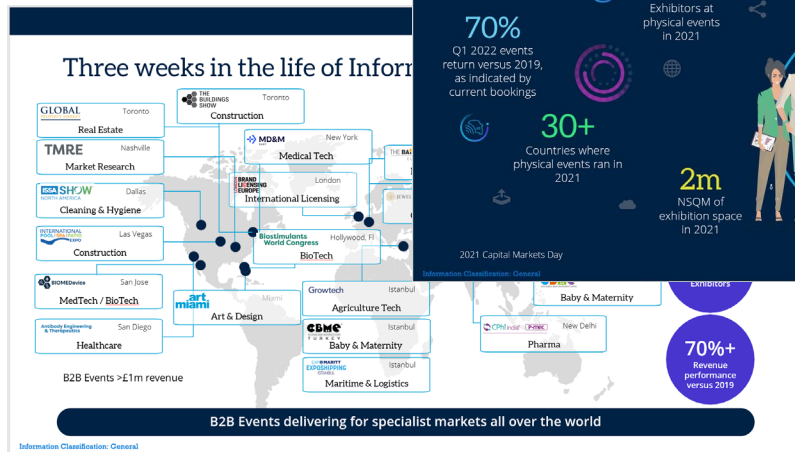
Expansion of capabilities  
in Audience Development and Digital  
Demand Generation

New Budgets

Create a leader in B2B Events and B2B Market Access

# Accelerating performance of B2B Events

## 1 Enduring Strength and power of B2B Events



# What are B2B Digital Services?

- 2 Transformation from B2B Events into Smart Events
- 3 Expansion of our capabilities in Audience Development & Digital Demand Generation

## SMART EVENTS

The Smart part of Smart Events, adding productivity to the power of in-person events

## AUDIENCE DEVELOPMENT

Content-led lead generation programs, increasingly differentiated by data segmentation

## DIGITAL DEMAND GENERATION

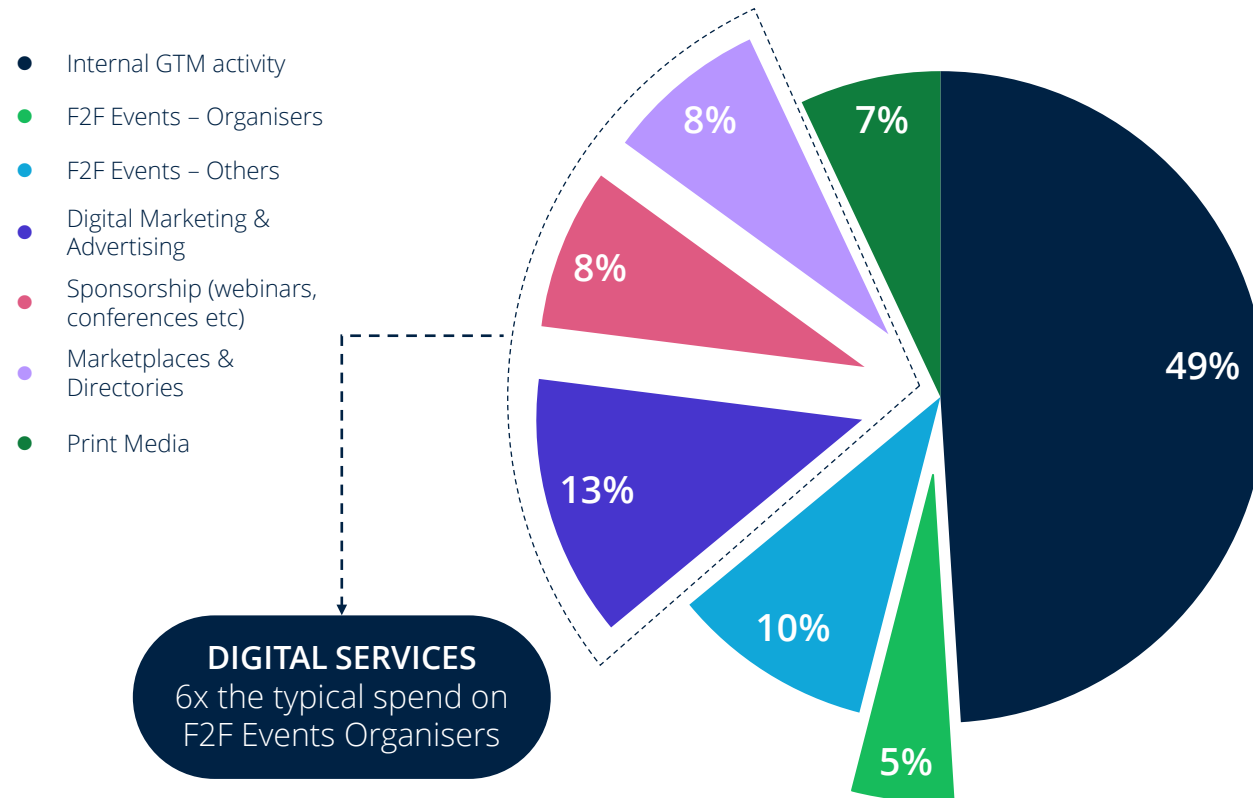
Data analytics that provide intent-based, qualified B2B buyers and sales prospects



# B2B Digital Services Revenue Opportunity

- 2 Transformation from B2B Events into Smart Events
- 3 Expansion of our capabilities in Audience Development & Digital Demand Generation

## Typical breakdown of Go-To-Market Expenditure



- Adjacent market opportunities in **Audience Development** and **Digital Demand Generation**
- Significant customer expenditure here already and high levels of growth
- Informa already generating £250m+ revenues in Digital Services across B2B Markets
- Building off existing event/media brands and customers
- Expands our addressable audiences and drives audience engagement
- Higher quality mix of revenue
- Accelerated growth opportunities

# Enhanced value and growth through the Digitisation of Events

## 2 Transformation from B2B Events into Smart Events

All B2B Events are becoming Smart Events



**9 - 11 November 2021**  
Fiera Milano, Milan, Italy

**25 Oct - 19 Nov 2021**  
Online Conference & Networking

**Smart Event features:**

- ✓ Comprehensive digital educational content
- ✓ Product level digital discovery
- ✓ Enhanced connectivity via digital matchmaking
- ✓ Digital registration for enhanced safety and behavioural data
- ✓ Automated contact swapping
- ✓ Hybrid access – both face-to-face and online

*"We were surprised not just by the high volume of foot traffic but also the quality of the leads we got. Even compared to 2019 we secured more quality leads this year."*

**Tony Martin**  
Director – Regional Marketing

**GRACE**  
Talent | Technology | Trust™

**Biotech Week Boston**

In-Person 20 – 23 September  
Virtual 28 – 30 September

- ✓ Hybrid experience
- ✓ Sustainability game building investment in Million Mangroves Project
- ✓ 5 fully hybrid events and 2 digital only
- ✓ 12 simultaneous tracks over 4 days, 250 content sessions
- ✓ Access to on-demand afterwards

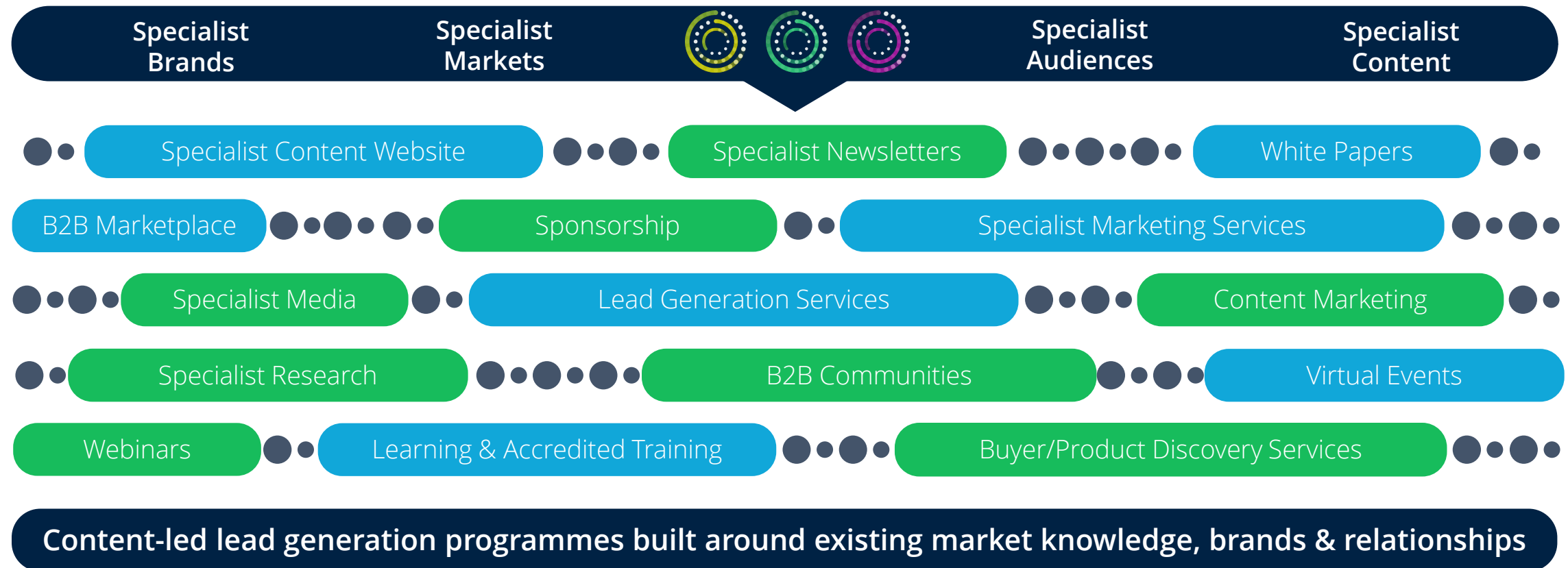
**connectme**

*"It takes a lot of effort, coordination, creativity, and personal investment to cover all aspects of this hybrid program. This event was delivered seamlessly to both attendees and speakers."*

**Lillian Schaff**  
Associate Director & Global Congresses Lead  
EMD Serono Inc

# Opportunity to accelerate growth in Audience Development

## 3 Expansion of our capabilities in Audience Development



# Creating Customer Value through Audience Development

## 3 Expansion of our capabilities in Audience Development

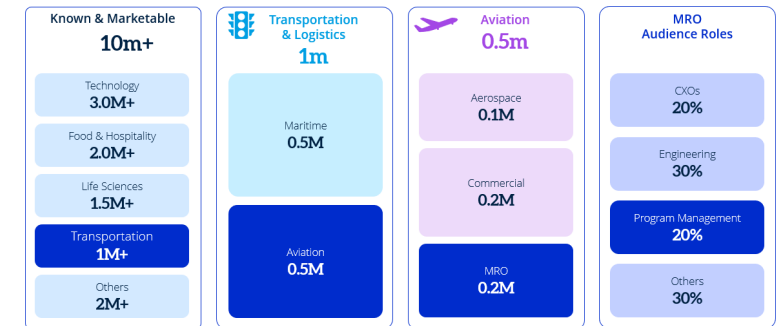
### The Brief

To help the Product Lifecycle Management Division of a long-established partner of the aerospace industry to engage more frequently and deeply with aerospace Program Managers



### The Solution

A multi-year, multi-channel initiative to connect the partner's business development leaders with aerospace program leaders year round with multiple digital and face-to-face touch points



**Aviation Week** worked with me to create a long-term program with measurable and agreed upon goals. Each year we have continued to track these goals and Aviation Week has exceeded the tangible numbers. The benefits include full contact leads, clicks and touch points. During the events we participated in, our Senior Management team has also had great exposure to key decision makers.

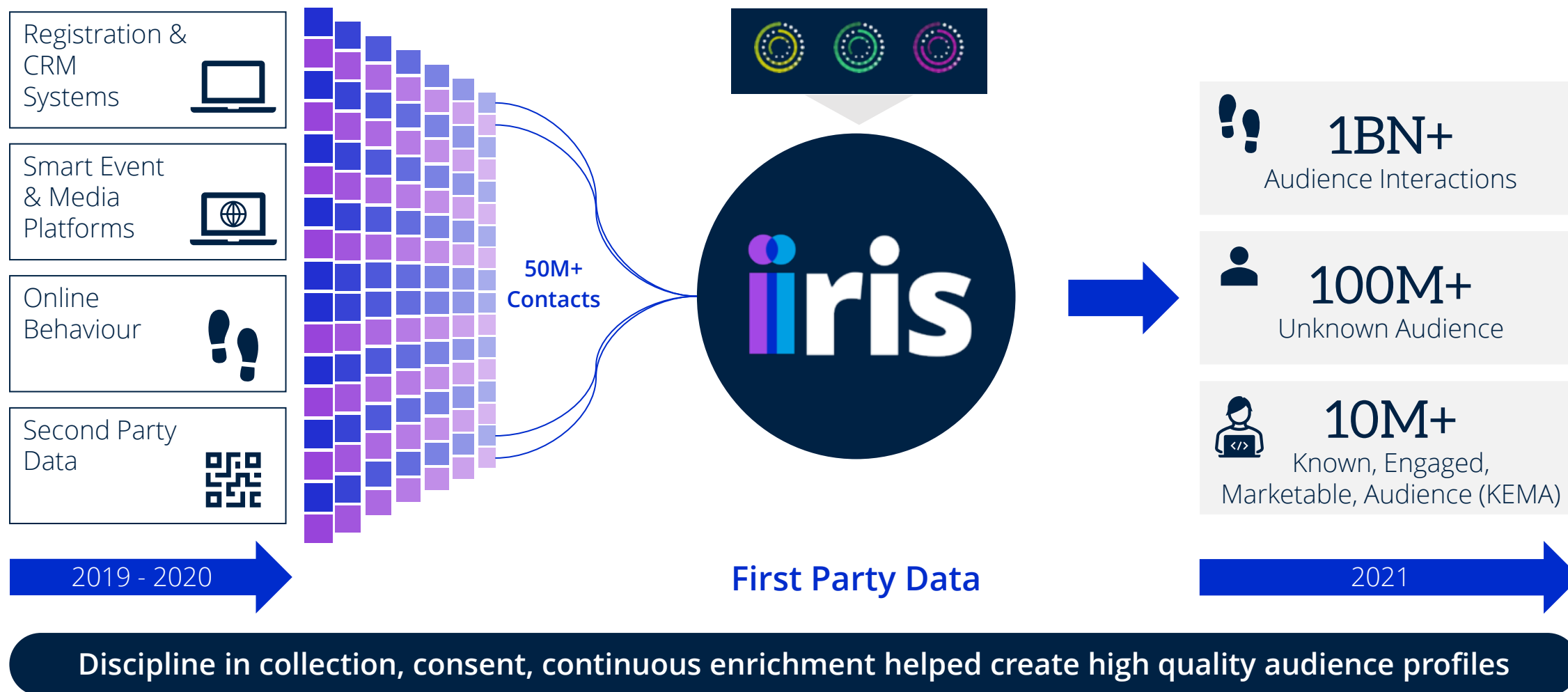
Content-led lead generation for highly specific B2B communities

# Opportunity to accelerate growth in Digital Demand Generation

## 3 Expansion of our capabilities in Digital Demand



# Where did we start?

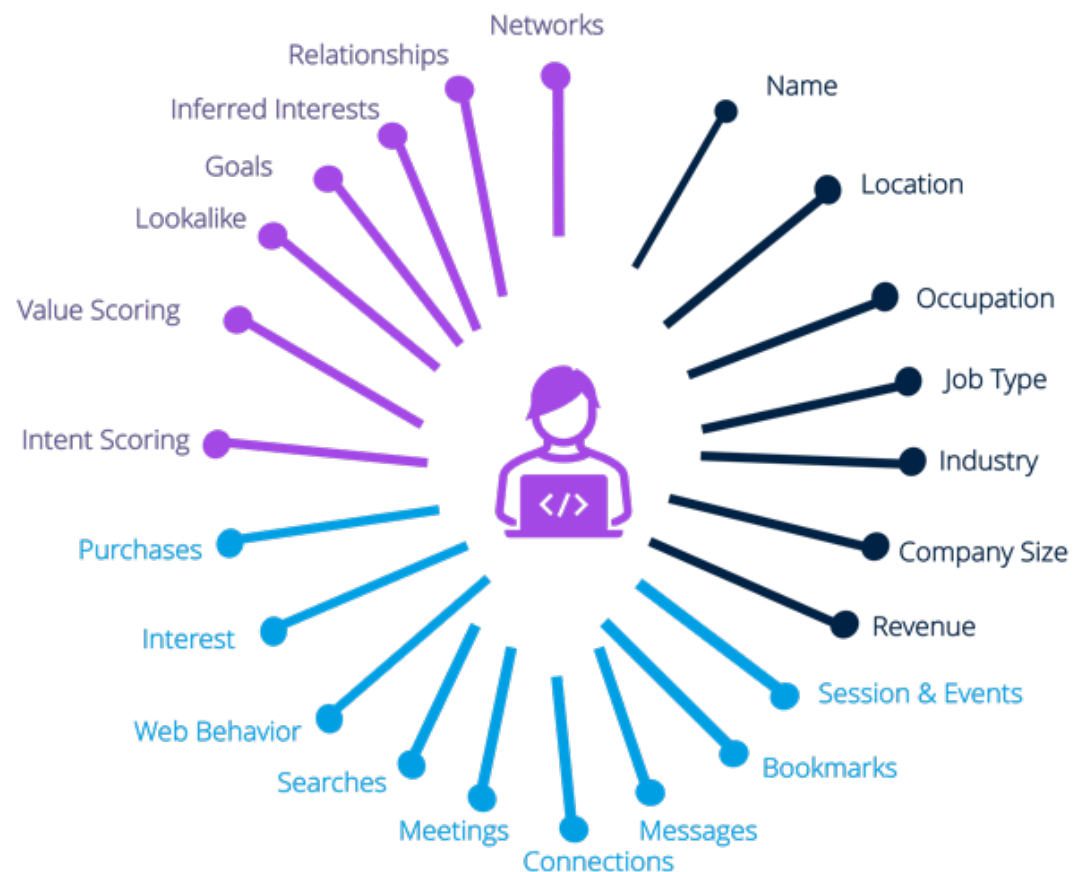


# What do we mean by KEMA?

## Enriched Data



## Behavioral Data



# 100's

Data points captured and enriched

## Demographics & Firmographics



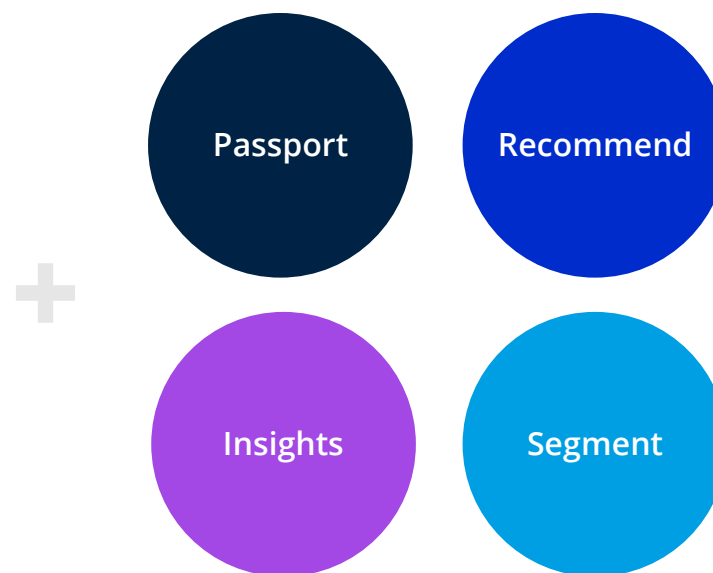
The depth of high quality first party data increases the value per audience

# 2021: What have we done?

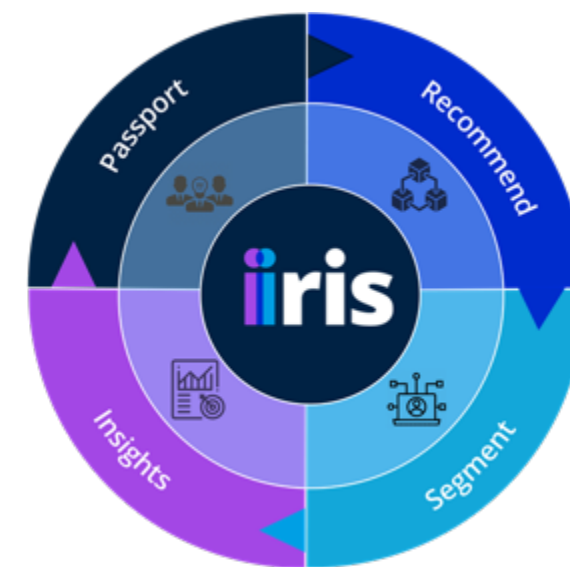
## Standardised KEMA



## Intelligent Services



## Customer Data & Analytics Engine



Targeted implementation of IIRIS is already delivering commercial value



# 2021: How is IIRIS adding commercial value?



Powered by  
IIRIS Recommend



**AVIATIONWEEK**  
& SPACE TECHNOLOGY

Powered by  
IIRIS Segment

2x

Product discovered

30%

More  
RFIs

RFI is a clear signal of  
buyer's purchasing  
intent

2x

Click through rates

4x

Paid subscriptions

Behaviour based  
segmentation results  
in better sales  
conversion

Good quality content → Better engagement → More behaviour data → More value per audience

# How are we helping our customers using a data-driven approach?

Elsa (Altered)  
Founder & CEO  
Antivirus Software Company



Help me find qualified buyers



## Audience Development

What topics and products are they interested in?  
Help me serve **relevant content and product**  
information to nurture the lead



## Digital Demand Generation

Where are they in their buying cycle?  
Offer value in **their buying moment** to close the deal

Precise matching of qualified buyers and prospects through IIRIS Segment and Insights

# In-depth audience profiles amplifies lifetime value



# In-depth company profile amplifies lifetime value

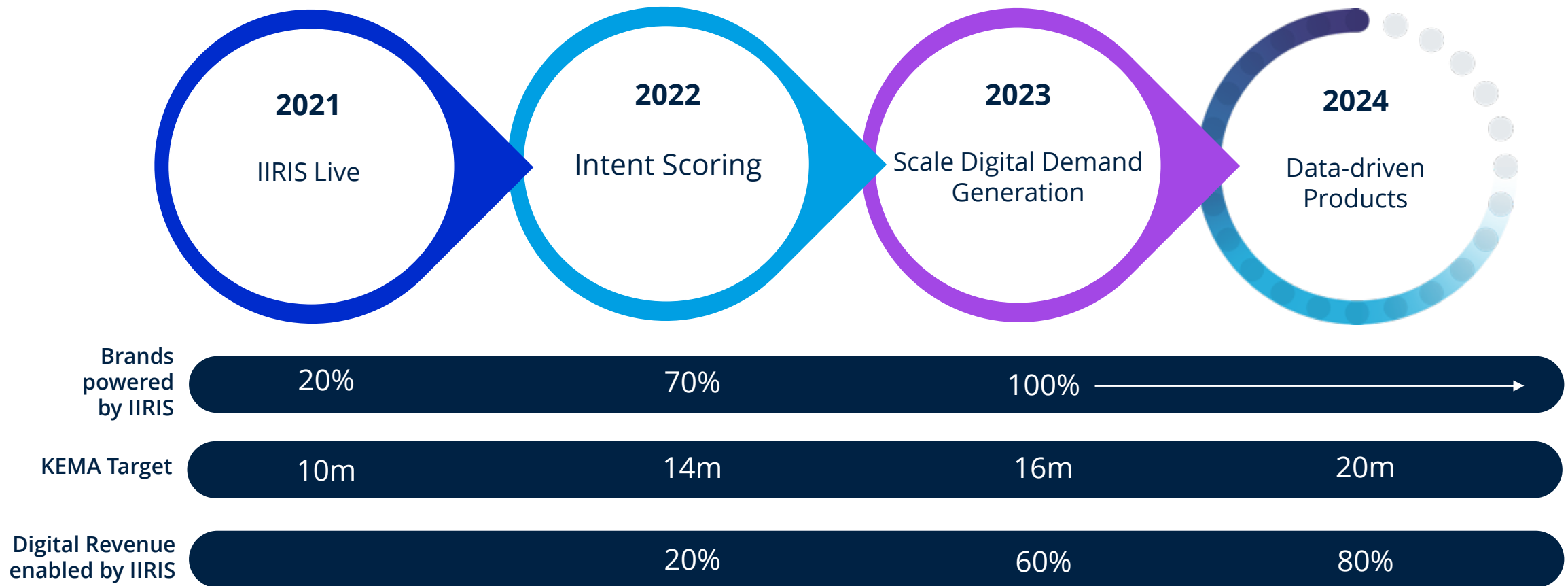
Behaviour Data

Data

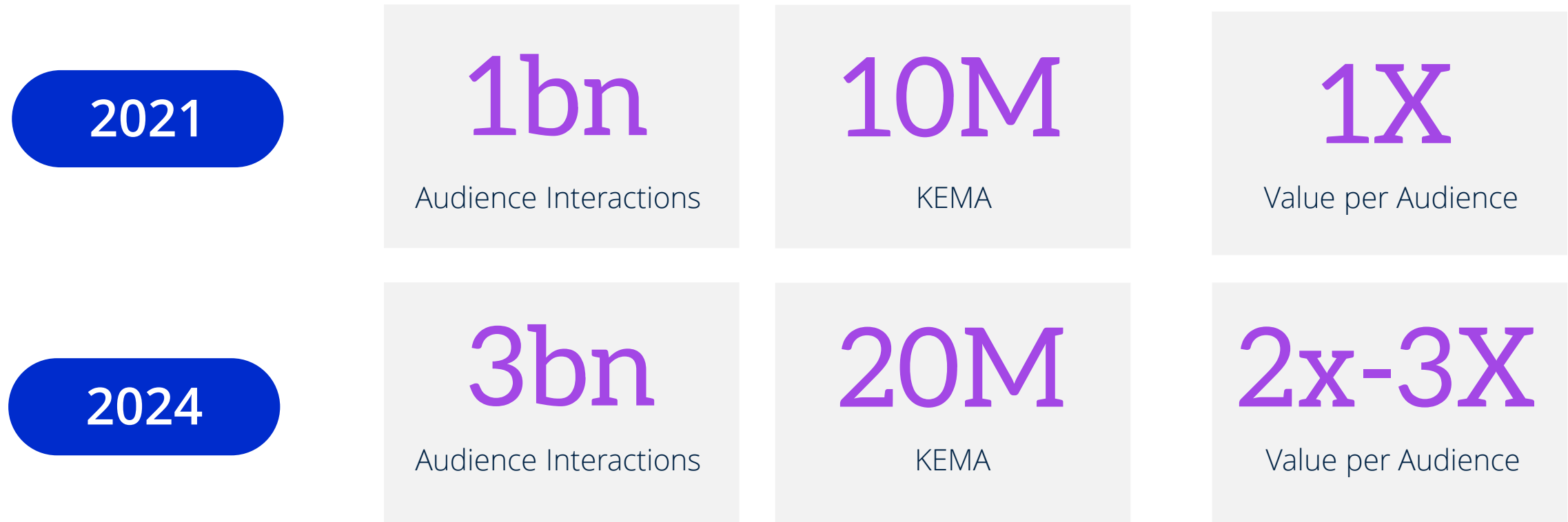


IIRIS enables cross sector view of a company (both on buy side and sell side)

# Where are we going? IIRIS Growth Acceleration Plan



## Amplify value of the business by doubling the volume and value of audience



World class B2B customer data and analytics engine at the heart of our growth ambition

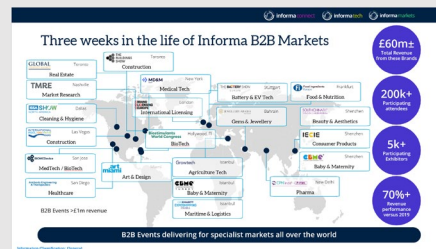


# From B2B Events to a leadership position in Market Access

## Growth acceleration 2021-2024

1

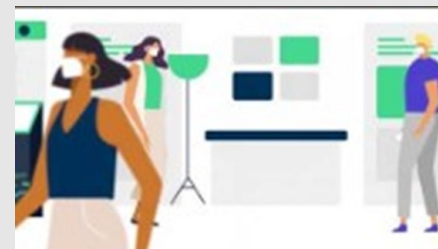
Enduring Strength and power of B2B Events



Existing Market

2

Transformation from B2B Events into Smart Events



New Market

3

Expansion of capabilities in Audience Development and Digital Demand Generation



New Budgets

Create a leader in B2B Market Access

# Accelerating Digital Services growth across B2B Markets

|                                                     | Vertical Market               | Smart Events | Audience Development | Digital Demand Generation |
|-----------------------------------------------------|-------------------------------|--------------|----------------------|---------------------------|
| Investing in legacy capability in line with revenue | Aviation                      | ✓            | ✓                    |                           |
|                                                     | Agriculture                   | ✓            | ✓                    |                           |
|                                                     | Medical Technology            | ✓            | ✓                    | ✓                         |
|                                                     | Tech                          | ✓            | ✓                    | ✓                         |
| Investing in new capability ahead of revenue        | Infrastructure & Construction | ✓            | ✓                    |                           |
|                                                     | Fashion                       | ✓            | ✓                    |                           |
|                                                     | Food                          | ✓            | ✓                    |                           |
|                                                     | Health & Nutrition            | ✓            | ✓                    |                           |
|                                                     | Healthcare                    | ✓            | ✓                    |                           |
|                                                     | Pharma                        | ✓            | ✓                    |                           |
|                                                     | Finance                       | ✓            | ✓                    |                           |
|                                                     |                               |              |                      |                           |

 Developed capability  
 Emerging capability

Expanding our portfolio of B2B Digital Services across all our specialist markets



*FASTER*

FORWARD

*gap*<sup>II</sup> **B2B Markets & Digital Services**  
in North America and EMEA**Energy**

All B2B Events  
to be powered by  
renewable energy

**Waste**

All B2B Events to be  
compliant with Better  
Standards programme,  
removing single use stands

**Carbon**

All B2B Events to save  
customers more carbon  
than we emit through role  
as carbon consolidator

**Content**

All B2B Events to incorporate  
Sustainability Inside, providing on-site  
content to accelerate sustainable  
development in our customer markets

# Summary

## Growth acceleration 2021-2024

1

Enduring strength & power  
of B2B Events



Full return and strong **growth in B2B Events**



Consider continued **sector consolidation** (eg Premiere)



Lead the industry in driving sustainable solutions, including as a **consolidator of carbon**

Existing Market

2

Transition from B2B Events  
to Smart Events



Transition the full portfolio of **B2B Events** to be **Smart Events**



Expand the range of **Smart services** available to customers



Grow and improve the quality of our **Known, Engaged, Marketable Audience (KEMA)**

New Market

3

Expansion of capabilities  
in Audience Development  
& Digital Demand Gen.



Operationalise the full power of **IIRIS Customer Data Engine**



Rapid growth off existing strengths in **Audience Development**



Build on Netline capabilities to expand in **Digital Demand Generation**

New Budgets

A global leader in B2B Market Access

# Capital Markets Day Schedule

|            |    |                                                                                    |
|------------|----|------------------------------------------------------------------------------------|
| 1.00pm GMT | ●● | Stephen A. Carter, Group Chief Executive and Gareth Wright, Group Finance Director |
|            | ●● | New Informa: Accelerated Growth & Portfolio Focus                                  |
| 2.00pm GMT | ●● | Q&A                                                                                |
| 2.30pm GMT | ●● | Refreshment Break                                                                  |
| 2.45pm GMT | ●● | Charlie McCurdy, Chief Executive Informa Markets and Max Gabriel, President IIRIS  |
|            | ●● | Growth & Acceleration: B2B Events & B2B Market Access                              |
| 3.15pm GMT | ●● | Annie Callanan, Chief Executive, Taylor & Francis                                  |
|            | ●● | Growth & Acceleration: Academic Markets & Knowledge Services                       |
| 3.45pm GMT | ●● | Q&A and Wrap-Up                                                                    |

# Informa Capital Markets Day

## 2021-2024 GAP II Academic Markets & Knowledge Services

Annie Callanan  
Chief Executive, Taylor & Francis



# Informa



Academic Markets & Knowledge Services



Taylor & Francis Group  
an **informa** business



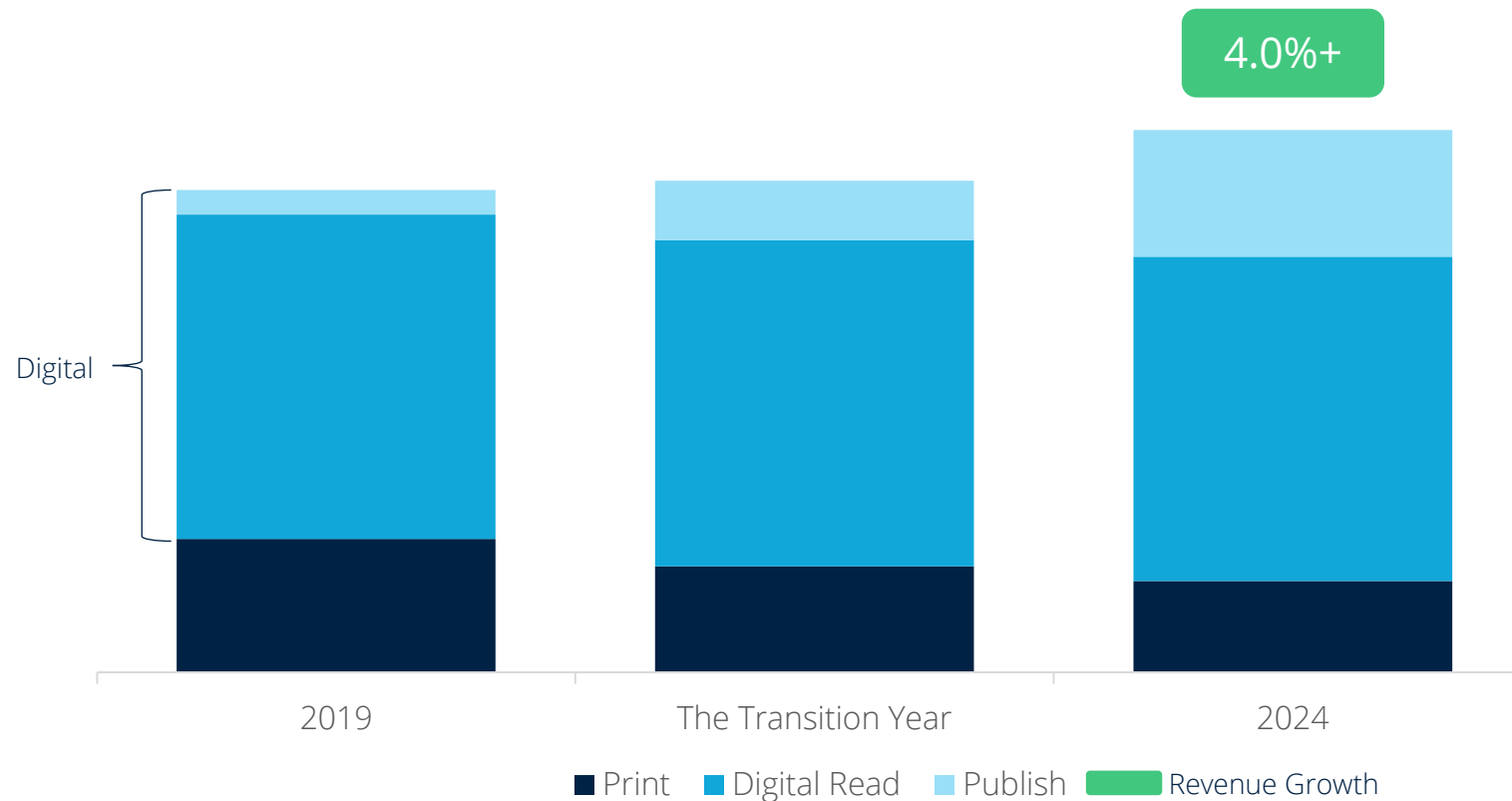
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**Dove**press

# 2021-2024 GAP II: Academic Markets & Knowledge Services

Revenue and Operating Margin development through GAP II for Taylor & Francis



Extending Leadership as Pre-eminent Academic Knowledge Services provider

Revenue Growth c2% Rises to 4%+ by 2024

Data, Automation, Researcher Services and Personalization

Successfully managing margins through to 2025

**Increased Open Research Capacity Doubles Growth Rate To 4%+ by 2024**

# Diversifying Business Models

## Pay to Read

*Publisher underwrites the cost of validating, publishing, curating and hosting content – subscription fees (largely from libraries) to access*

Sustainability of Pay to Read (Subscription):

- Subscription Access Where Pay to Publish Funds Unavailable
- Importance of Curation in a Rapidly Expanding Knowledge Base
- Speed of Imparting Knowledge

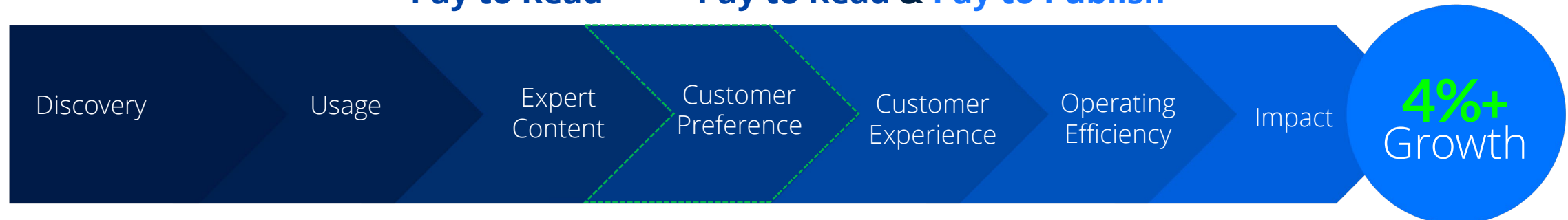
## Pay to Publish

*Experts pay processing fee for publisher to validate, publish, curate and host content*

Growth drivers of Open Research:

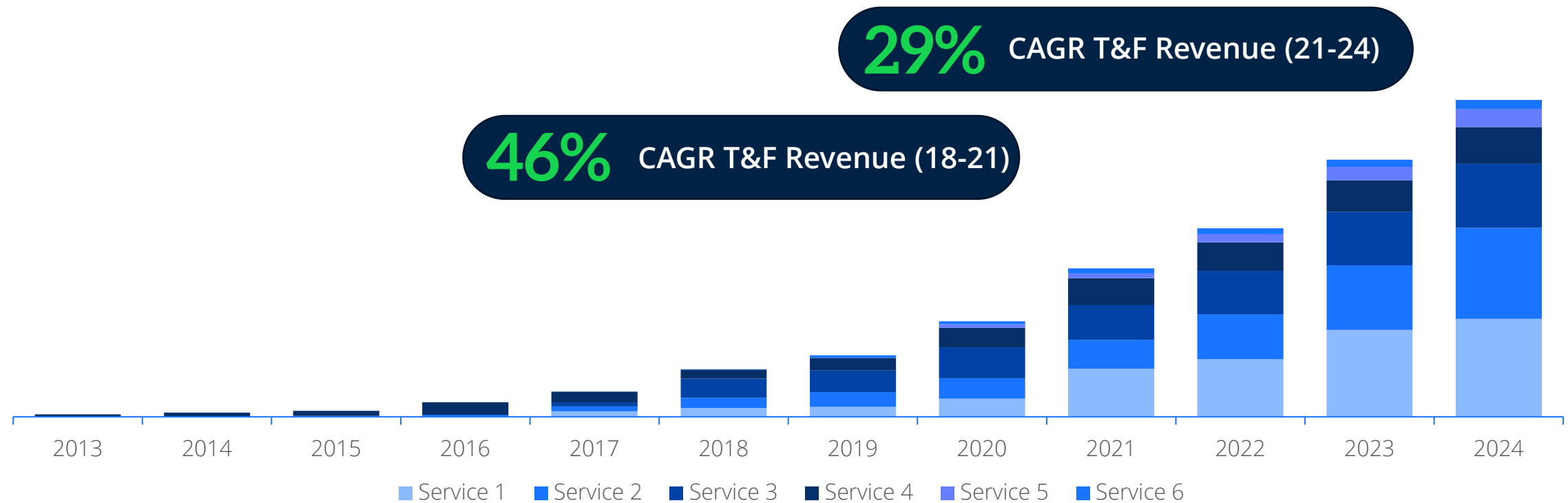
- Attracts Funding Diversity
- Facilitates Increased Publication Volumes
- Drives Interdisciplinary Usage
- Enhances Real World Application
- Invites Geographical Diversity

**Pay to Read → Pay to Read & Pay to Publish**



# Pay to Publish (Open Research) Revenue Growth (£M)

Satisfying Customer Preferences Through a Range of Services



Open Research Volumes Across the Sector are Accelerating: 10% YoY in 2017; 24% YoY in 2020







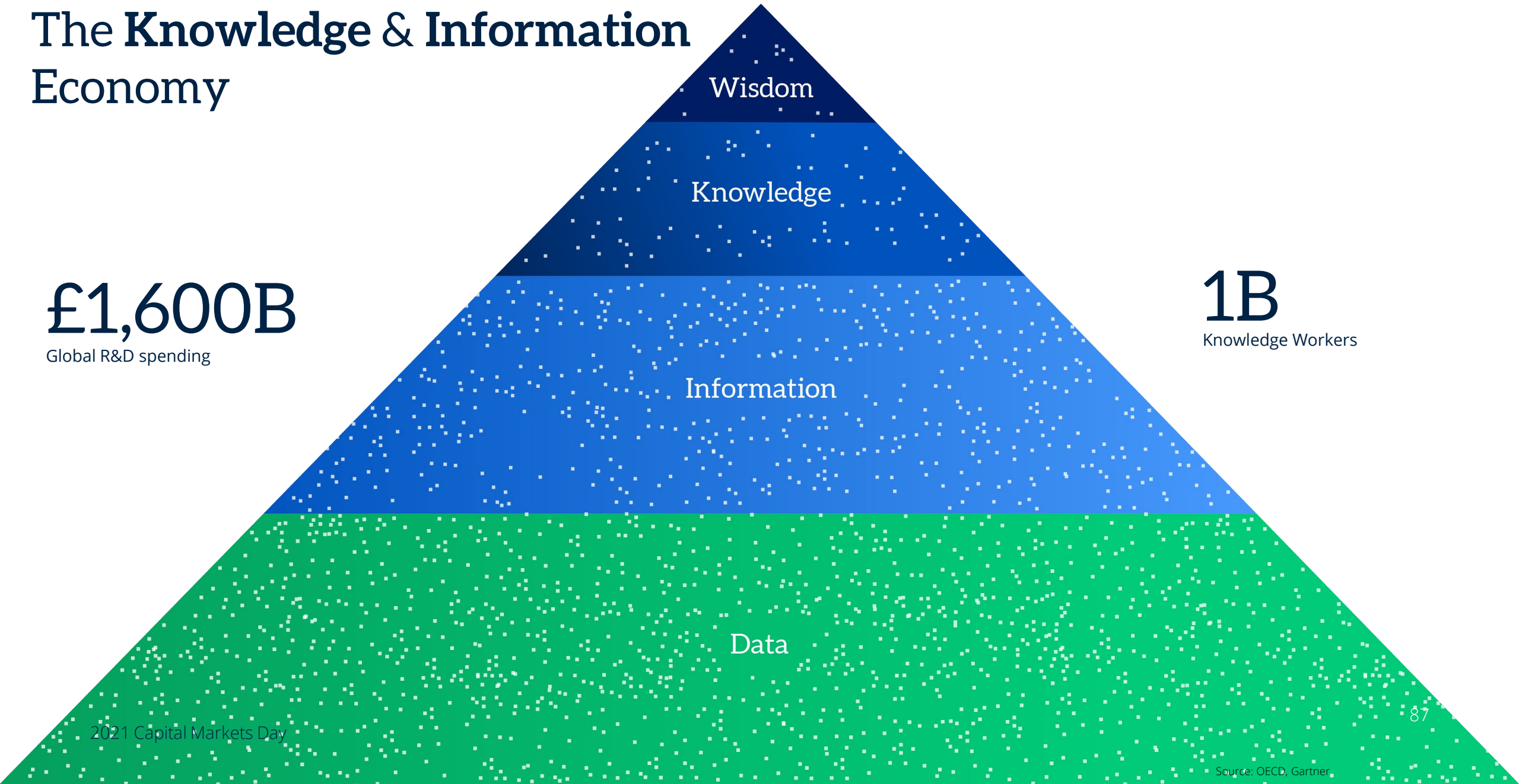
# The Knowledge & Information Economy

£1,600B

Global R&D spending

1B

Knowledge Workers



# Expanding Addressable Market for Knowledge Services

£13B  
Annual Library Market:  
Market Spend on books and journals  
Pay to Read

£60B  
Annual  
New Research Grants  
Pay to Publish

£425B  
Market Size of Active Academic R&D Grant Funding in 2020

# Academic Knowledge Services

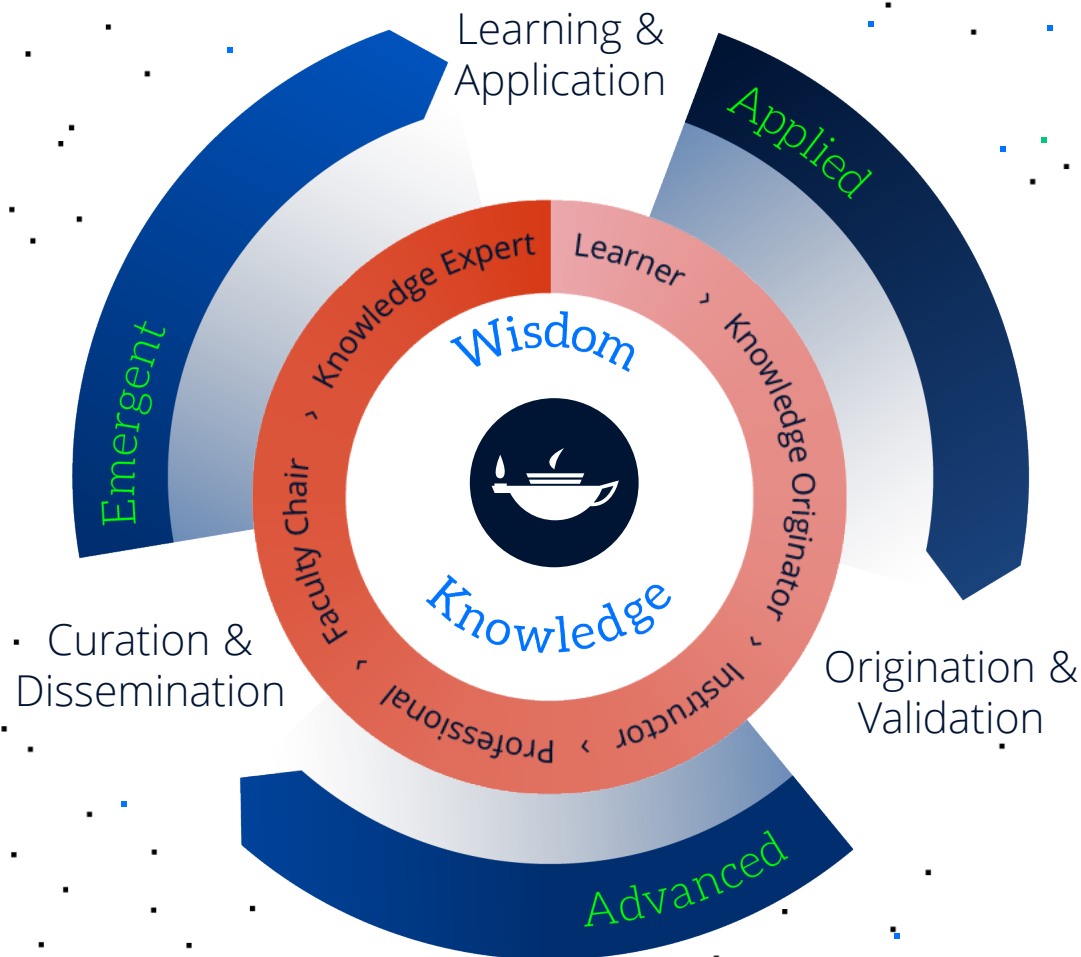
## Pay to Publish Researcher Services

### Journal Publishing

Open Research  
Open Books  
Publishing Platforms  
Readership Services  
Curation Services  
Editing Services  
Data Services



Established Revenue Stream  
 Nascent Revenue Stream



## Pay to Read Advanced Learning

### Book Publishing

Enhanced eBooks  
Readership Services  
Digital Learning Material  
Curation Services  
Data Services



# The Customer

## Published Outputs

8.9M Experts

Monograph  
translated into  
Spanish and  
Mandarin

Re-uses  
published  
data

Authors multiple  
books and articles  
(including reviews  
& reports)

Consumes policy and  
technical materials for  
professional development

Consumes content  
in textbooks

Consumes journals and  
research monographs in  
speciality topic

Publishes research  
protocols and data  
notes

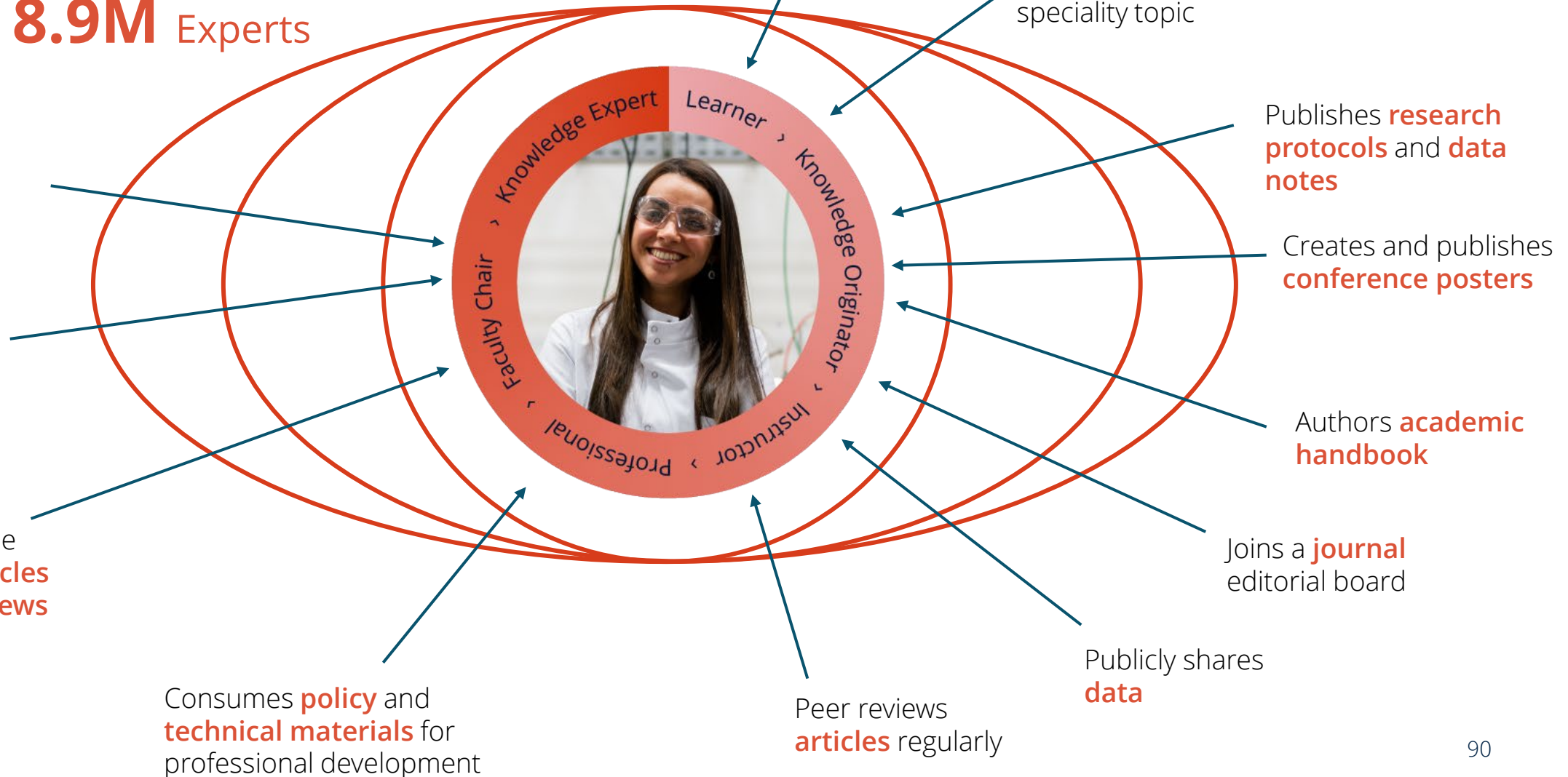
Creates and publishes  
conference posters

Authors academic  
handbook

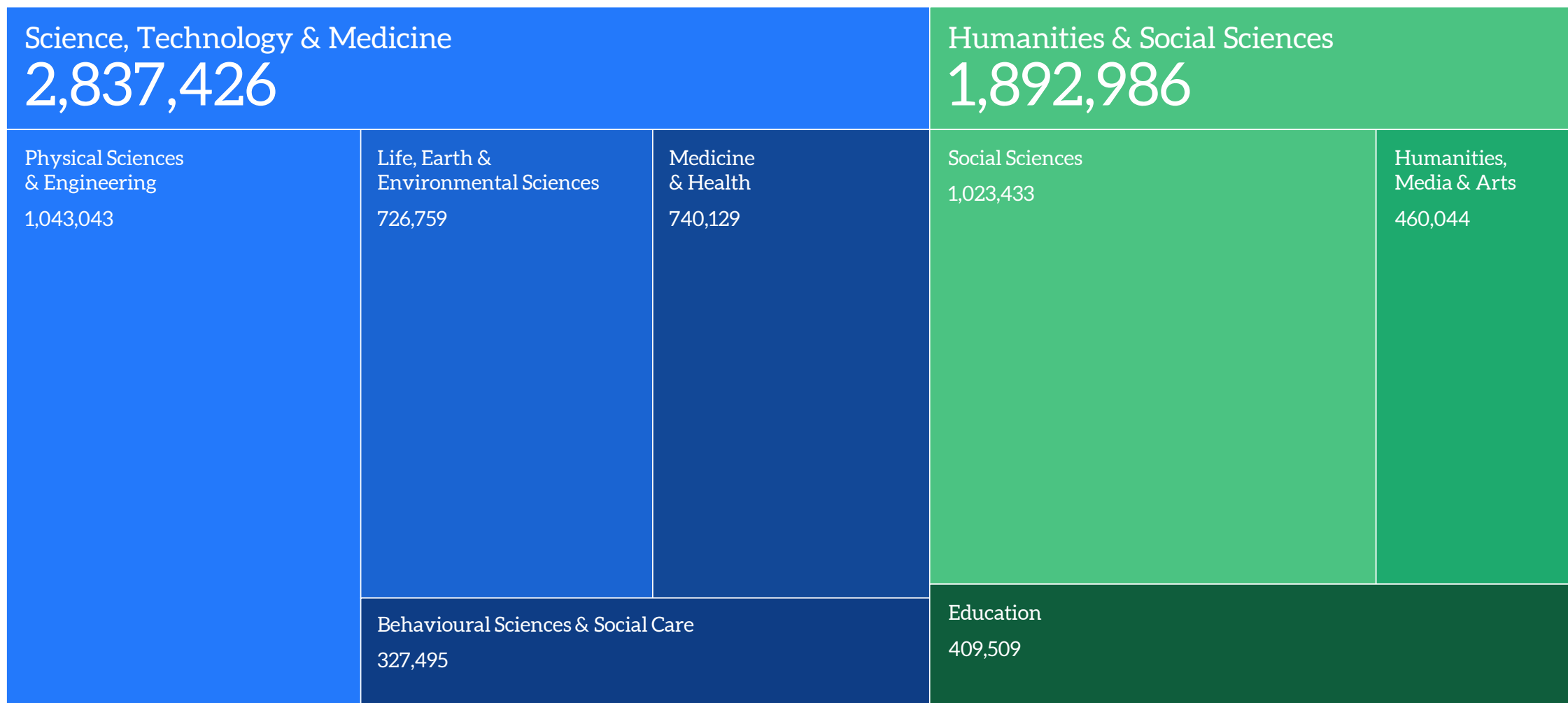
Joins a journal  
editorial board

Publicly shares  
data

Peer reviews  
articles regularly



# Content Assets: 5M+ Outputs

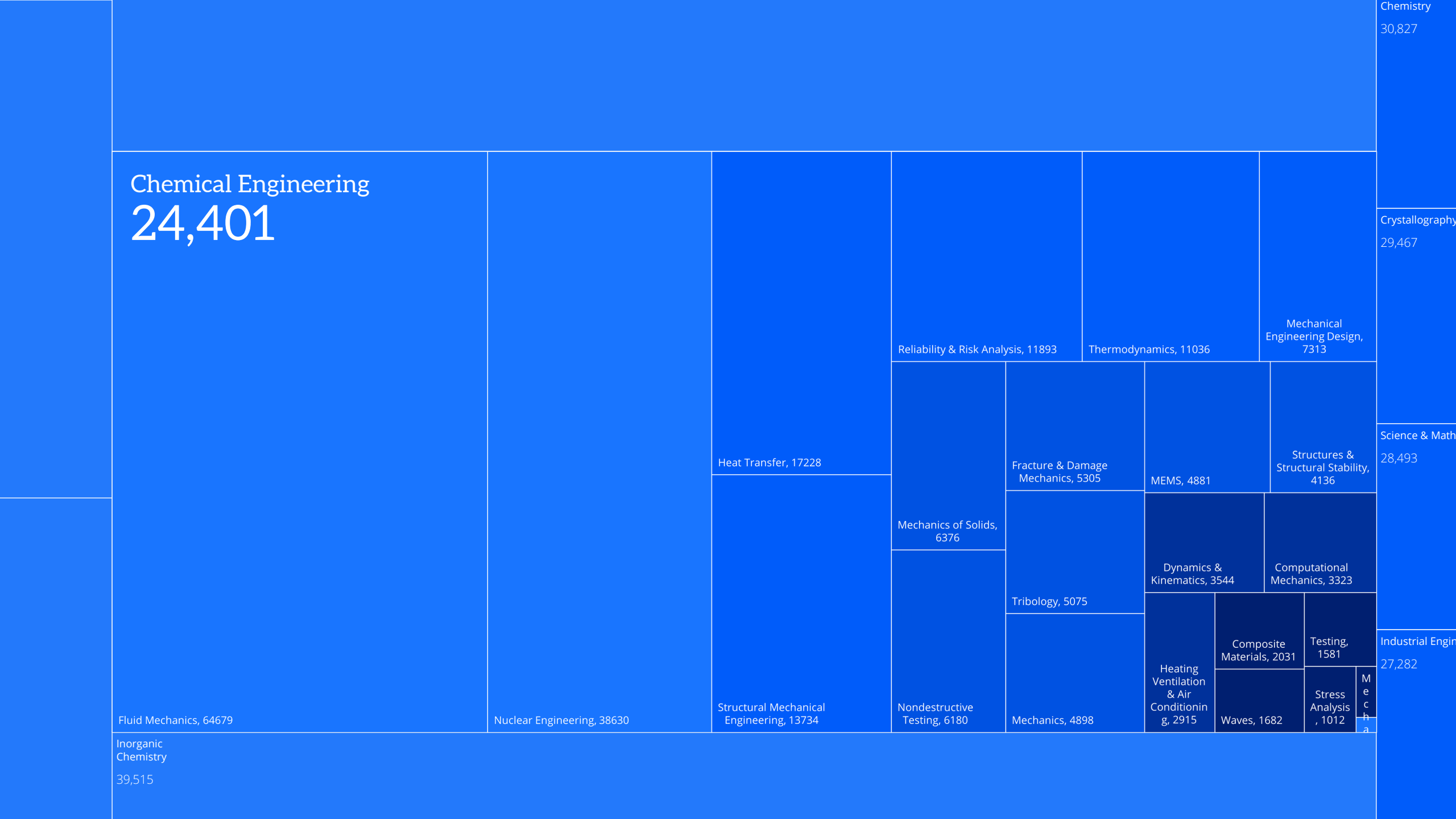


| Physical Sciences & Engineering<br>1,043,043 |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       | Life, Earth & Environmental Sciences<br>726,759 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      | Medicine & Health<br>740,129 |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|----------------------------------------------|------------------------------------------------------------|---------------------------------------------|-----------------------------------------------|-------------------------------------|-------------------------------------------------|-----------------------------------------|-------------------------------|-------------------------------------|-----------------------|-------------------------------------------------|-----------------------|--------------------------------|---------------------------------|-------------------------------------|---------------------------------|------------------------------------|-------------------------|---------------------------|----------------------|------------------------------|-----------------------------------|---------------------------------|----------------------------|-----------------------------|----------------------|-------------------------|-------------------------------|------------------------|----------------------|-----------------------------------------------|----------------------|-------------------------------------------|--|------------------------------------------|--|--------------------------------|--|----------------------------|--|---------------------|--|---------------------|--|--------------------|--|----------------|--|----|--|
| Materials Science<br>110,976                 | Condensed Matter<br>53,565                                 | Mathematics<br>37,450                       | Electrical & Electronic Engineering<br>36,127 |                                     | Physics<br>33,946                               |                                         | General Engineering<br>33,224 |                                     | Zoology<br>110,976    | Environmental Sciences<br>43,504                |                       | GIS & Remote Sensing<br>39,753 |                                 | Vetinary Science<br>36,262          |                                 | General Medicine<br>99,884         |                         |                           | Oncology<br>44,642   |                              | Ophthalmology<br>40,068           |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            | Organic Chemistry<br>30,827                 | Analytical Chemistry<br>27,071                | Manufacturing Engineering<br>26,965 | Mechanical Engineering<br>42,154                | Control & Systems Engineering<br>23,469 | Cell Biology<br>35,814        | Water Science & Resources<br>31,539 |                       | Toxicology<br>30,354                            | Agriculture<br>27,009 | Plant Science<br>57,725        | Environemn-tal Health<br>34,762 | Food Science & technology<br>26,336 | Environme ntal Policy<br>16,154 | Fishe-ries<br>15,751               | Forestry<br>14,837      | Neurology<br>39,195       | Immunology<br>34,765 | Substance Abuse<br>24,500    | Hematology<br>23,944              | Otorhinolaryngology<br>21,351   |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              | Civil, Environmental & Geo-technical Engineering<br>42,763 | Crystallography<br>29,467                   | Nuclear Physics<br>23,012                     | Algebra<br>17,036                   | Ergono-mics<br>16,448                           | Energy<br>16,146                        |                               | Spectro-scopy<br>15,115             |                       | Earth Sciences<br>51,915                        | Botany<br>34,588      |                                |                                 |                                     | Micro-biology<br>13,654         | Marin e & Aquat ic<br>10,74        | Life Scien ces<br>10,74 |                           |                      | Gene tics<br>10,706          | Obstetrics & Gynecology<br>38,312 | Public Health<br>34,311         | Health & Society<br>21,103 | Gastroent erology<br>14,899 | Psychiatry<br>14,801 | Disability & Rehabilita |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
| Chemical Engineering<br>24,401               | Science & Mathematics Education<br>28,493                  | Atomic & Molecu-lar Physical Chem<br>21,148 | Textiles<br>15,046                            | Optics<br>12, 997                   | Natural Organic & Medicinal Chemistry<br>16,448 | Transport Engineering<br>15,115         | Molecular Biology<br>21,474   | Entomo-logy<br>17,474               | Physio-logy<br>13,808 |                                                 |                       | Soil Science<br>10,098         | Clima te &<br>10,74             | Ecol ogy<br>6,04                    |                                 | Pharmaceutic al Medicine<br>34,962 | Pharmacol ogy<br>29,389 | Sports Medicine<br>19,016 | Radiolo gy<br>13,441 | Surgery<br>11,995            |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
| Statistics & Probability<br>75,225           | Inorganic Chemistry<br>39,515                              | Industrial Engineering & Ma...<br>27,282    | Applied Mathe-matics<br>19,159                | Environmental Chemis-try<br>13,858  | Multidis-ciplinary Physics<br>13,858            | History of Scien-ce<br>13,858           |                               |                                     |                       | Chemis-try<br>13,858                            | Phy-sical<br>13,858   |                                |                                 |                                     | Micro-biology<br>13,654         |                                    |                         |                           |                      |                              | Palaeobi-ology<br>11,769          | Scientifi c & Medical<br>11,769 |                            | Car to gra-phy<br>11,769    | Fo-od<br>11,769      | Nu-...<br>11,769        | Laboratory Medicine<br>16,652 | Orthop edics<br>13,441 | Occu patio<br>13,441 | Nutri tion<br>13,441                          | Dent istry<br>13,441 | Endo crino<br>13,441                      |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       | Behavioral Sciences & Social Care<br>327,495    |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      | Social Work<br>48,916        |                                   |                                 |                            |                             |                      |                         |                               |                        |                      | Psychoanal ysis<br>28,973                     |                      | Psychology (multidiscipl inary)<br>27,572 |  | Counseli ng And Psychot herapy<br>18,184 |  | Gero ntology<br>14,29          |  | Men tal Hea lth<br>14,29   |  | Sexu al<br>14,29    |  | Ther apy<br>14,29   |  | Trau ma<br>14,29   |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      | Cognitive & Experimental Psychology<br>28,092 |                      | Social Psychology<br>23,935               |  | Neurops ychology<br>18,184               |  | Marri age, Famil y &<br>18,184 |  | Dev elop me ntal<br>18,184 |  | Clini cal<br>18,184 |  | Fore nsic<br>18,184 |  | Beh avio<br>18,184 |  | Arts<br>18,184 |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
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|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
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|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
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|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
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|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  |    |  |
|                                              |                                                            |                                             |                                               |                                     |                                                 |                                         |                               |                                     |                       |                                                 |                       |                                |                                 |                                     |                                 |                                    |                         |                           |                      |                              |                                   |                                 |                            |                             |                      |                         |                               |                        |                      |                                               |                      |                                           |  |                                          |  |                                |  |                            |  |                     |  |                     |  |                    |  |                |  | </ |  |



Physical Sciences  
& Engineering  
1,043,043

|                                    |                                                           |                                           |                                   |                                               |                                  |                                          |                                     |                                         |                                                 |                        |                                                |  |
|------------------------------------|-----------------------------------------------------------|-------------------------------------------|-----------------------------------|-----------------------------------------------|----------------------------------|------------------------------------------|-------------------------------------|-----------------------------------------|-------------------------------------------------|------------------------|------------------------------------------------|--|
| Materials Science<br>110,976       | Condensed Matter<br>53,565                                | Mathematics<br>37,450                     |                                   | Electrical & Electronic Engineering<br>36,127 |                                  | Physics<br>33,946                        |                                     | General Engineering<br>33,224           |                                                 |                        |                                                |  |
|                                    |                                                           | Organic Chemistry<br>30,827               | Analytical Chemistry<br>27,071    | Manufacturing Engineering<br>26,965           |                                  | Mechanical Engineering<br>42,154         |                                     | Control & Systems Engineering<br>23,469 |                                                 |                        |                                                |  |
|                                    |                                                           |                                           |                                   |                                               |                                  |                                          |                                     |                                         |                                                 |                        |                                                |  |
|                                    | Civil, Environmental & Geotechnical Engineering<br>42,763 | Crystallography<br>29,467                 | Nuclear Physics<br>23,012         | Algebra<br>17,036                             |                                  | Ergonomics<br>16,448                     |                                     | Energy<br>16,146                        |                                                 | Spectroscopy<br>15,115 |                                                |  |
| Statistics & Probability<br>75,225 | Chemical Engineering<br>24,401                            | Science & Mathematics Education<br>28,493 |                                   | Atomic & Molecular Physical Chem<br>21,148    | Textiles<br>15,046               |                                          | Optics<br>12,997                    |                                         | Natural Organic & Medicinal Chemistry<br>12,825 |                        | Transport Engineering<br>11,607                |  |
|                                    |                                                           |                                           | Analysis<br>14,095                |                                               | Information Technology<br>11,146 |                                          | Artificial Intelligence<br>9,123    |                                         | Science & Technology studies<br>8,990           |                        | Biomechanics & Biomedical Engineering<br>8,727 |  |
|                                    |                                                           |                                           |                                   |                                               | Inorganic Chemistry<br>39,515    | Industrial Engineering & Ma...<br>27,282 | Applied Mathematics<br>19,159       | Environmental Chemistry<br>13,858       | Multidisciplinary Physics<br>10,167             |                        | History of Science<br>8,727                    |  |
|                                    | Polymer Chemistry<br>10,152                               | Optimization<br>7,934                     | Nanoscience & Technology<br>3,779 |                                               |                                  |                                          |                                     |                                         | Design Engineering<br>2,895                     |                        | Aerospace<br>2,863                             |  |
|                                    |                                                           |                                           | Engineering Education<br>3,203    |                                               |                                  |                                          |                                     |                                         | Health & Safety Engineering<br>2,254            |                        |                                                |  |
|                                    |                                                           |                                           |                                   |                                               |                                  |                                          | Wood Science & Engineering<br>1,805 |                                         |                                                 |                        |                                                |  |

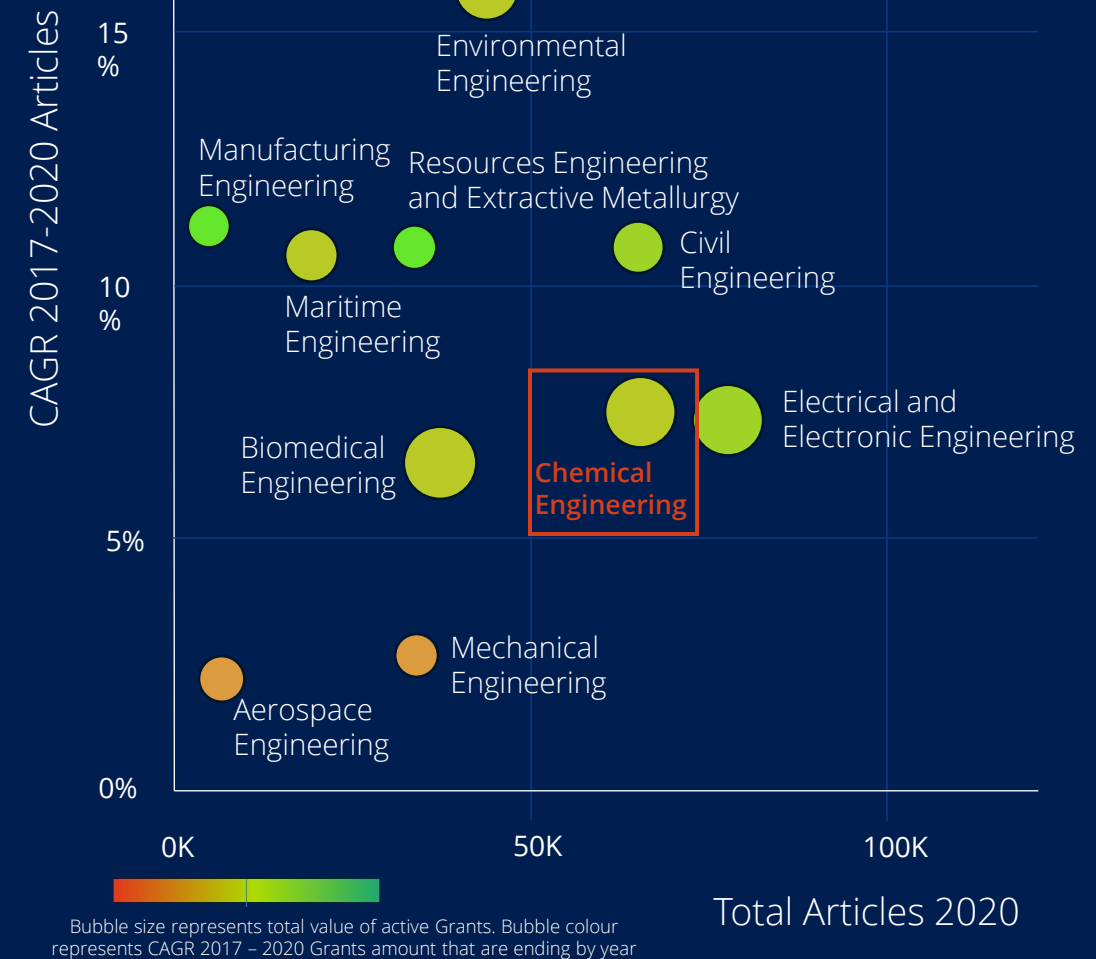


# Tracking Funding Flows to Publication Volumes

## Chemical Engineering

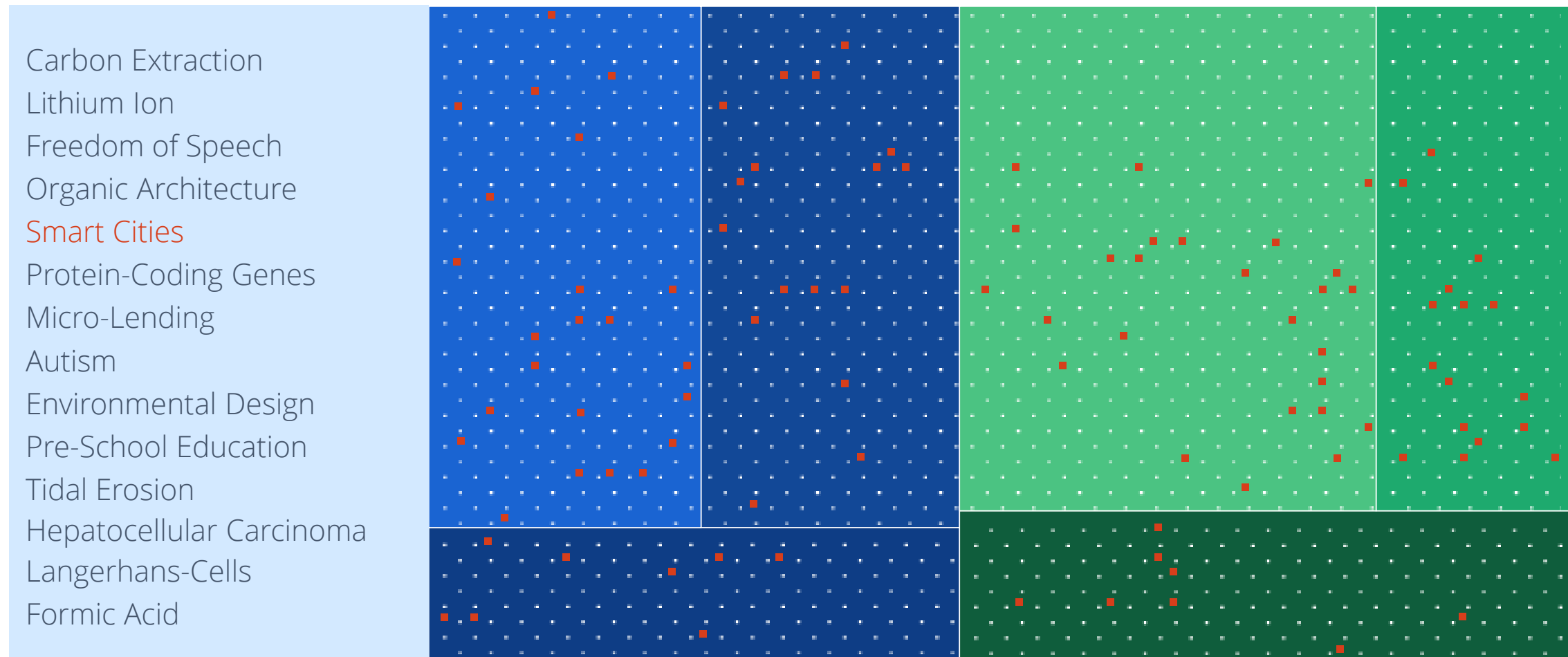
Increase (11% CAGR) in funding values drives publication growth (8% CAGR)

| Subject area                                    | Total Value Grants Active in 2020 USD \$B | Value Grants Ending 2019/20 Blended USD \$M | 3 Yr CAGR Value Grants by Ending Year | 2020 Articles | 3 Yr CAGR Articles |
|-------------------------------------------------|-------------------------------------------|---------------------------------------------|---------------------------------------|---------------|--------------------|
| Biomedical Engineering                          | \$6.4bn                                   | \$1213M                                     | 0%                                    | 32K           | 7%                 |
| Electrical and Electronic Engineering           | \$6.1bn                                   | \$1397M                                     | 9%                                    | 74K           | 8%                 |
| <b>Chemical engineering</b>                     | <b>\$4.8bn</b>                            | <b>\$1062M</b>                              | <b>11%</b>                            | <b>51K</b>    | <b>8%</b>          |
| Environmental Engineering                       | \$4.0bn                                   | \$732M                                      | 3%                                    | 42K           | 16%                |
| Civil Engineering                               | \$3.1bn                                   | \$778M                                      | 9%                                    | 61K           | 11%                |
| Manufacturing Engineering                       | \$2.3bn                                   | \$513M                                      | 8%                                    | 17K           | 11%                |
| Resources Engineering and Extractive Metallurgy | \$2.0bn                                   | \$639M                                      | 28%                                   | 25K           | 11%                |
| Aerospace Engineering                           | \$1.1bn                                   | \$361M                                      | -7%                                   | 4K            | 3%                 |
| Maritime Engineering                            | \$0.9bn                                   | \$120M                                      | 40%                                   | 5K            | 11%                |
| Mechanical Engineering                          | \$0.9bn                                   | \$275M                                      | -5%                                   | 32K           | 3%                 |

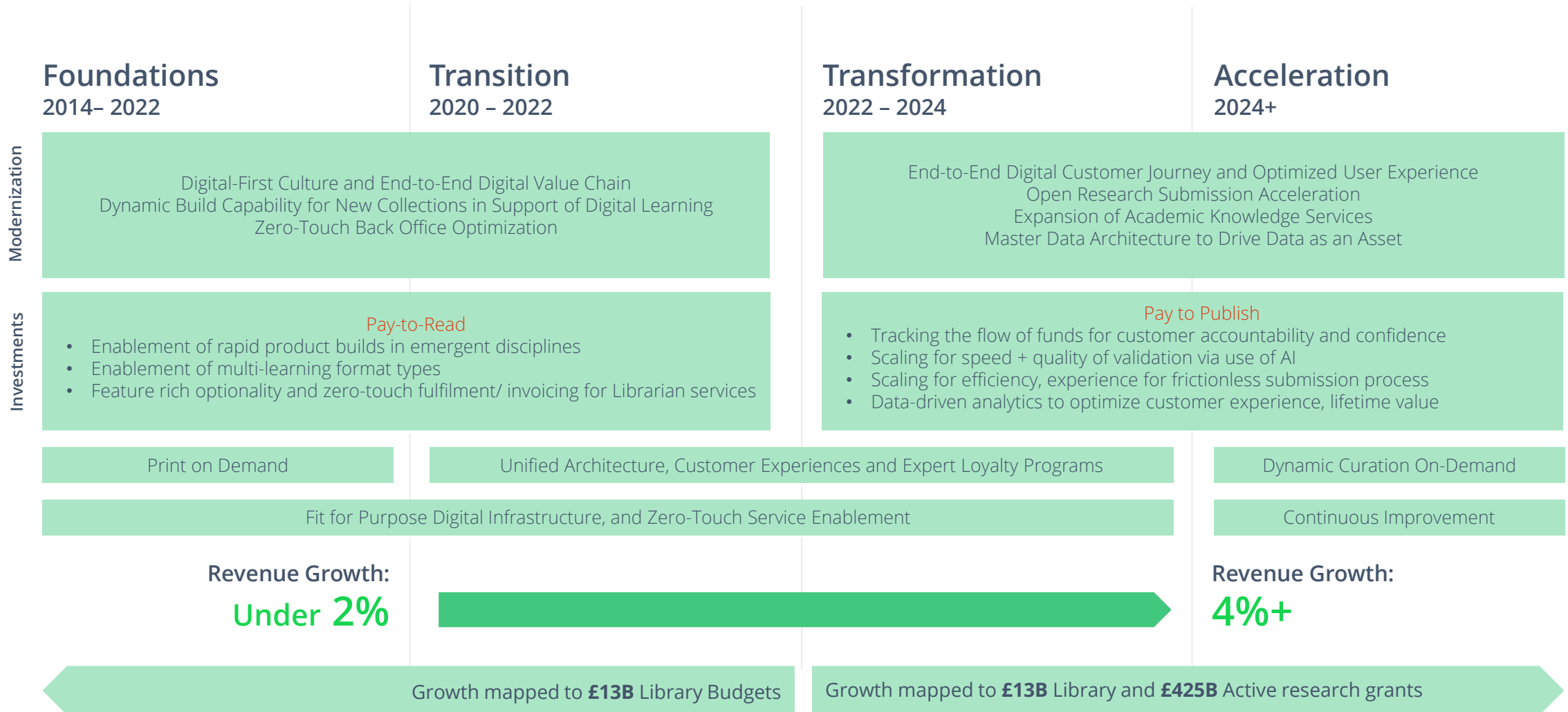


# Enabling Interdisciplinary Research: 480K Concepts Across our Corpus

## Smart City Collection: 180K References across 70K Articles

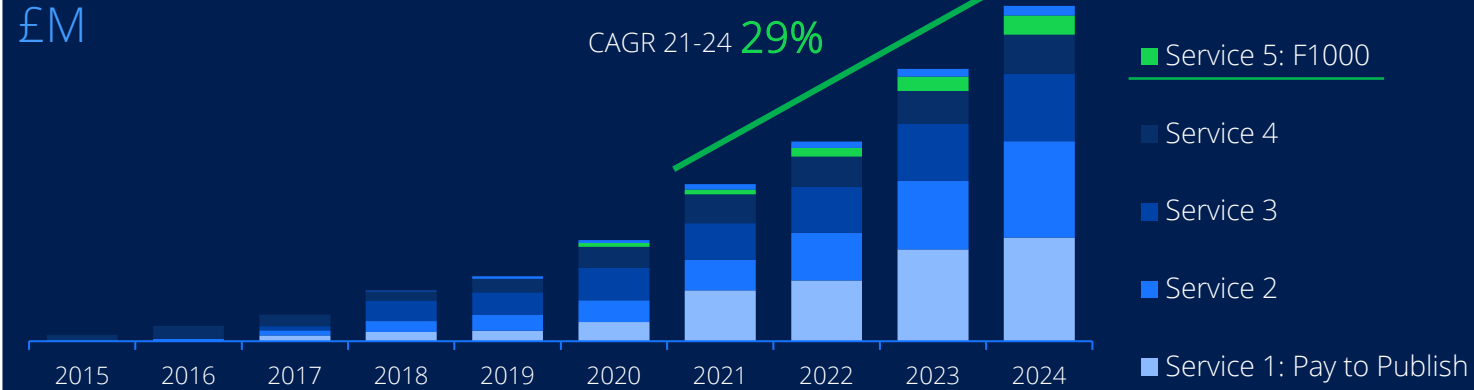


# 10YR Modernisation Journey – driven by GAP I + *gap*<sup>II</sup>

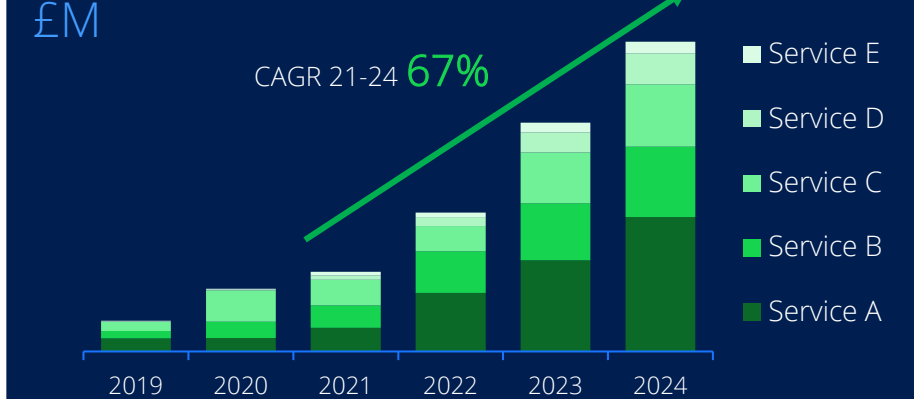


# Revenue Growth and Revenue Mix

## Open Research Revenue Growth

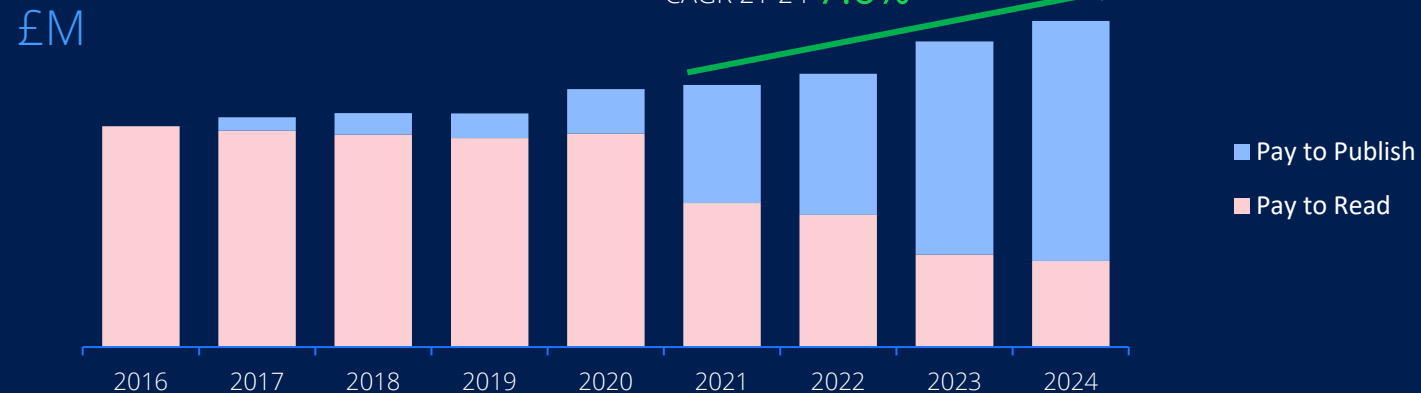


## Spotlight on Customer Preference in **F1000**

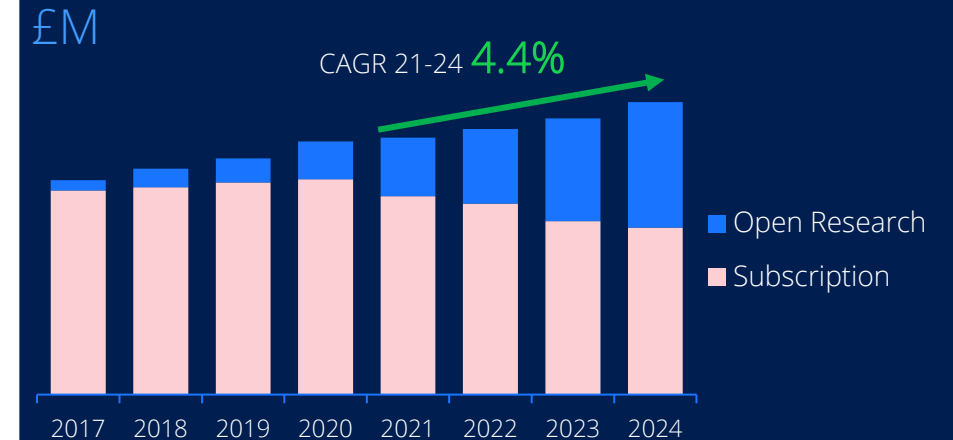


## Spotlight on Pay to Publish

Cohort of 30 "Read and Publish" deals so far



## Total Article-based Revenue Streams



# Responding to Diversity in Customer Demand

## Analogue v Digital

2024 **17% | 83%**

2021 22% | 78%

2017 30% | 70%

## Institution v Retail

2024 **76% | 24%**

2021 74% | 26%

2017 70% | 30%

## Intermediaries v Direct

2024 **55% | 45%**

2021 64% | 36%

2017 78% | 22%

## Product v Service

2024 **76% | 24%**

2021 87% | 13%

2017 97% | 3%

## Librarian v Non-Librarian Market

2024 **52% | 48%**

2021 58% | 42%

2017 61% | 39%

## Pay to Read v Pay to Publish

2024 **58% | 42%**

2021 77% | 23%

2017 93% | 7%

**FASTER**



**FORWARD**

## Environmental, Social & Governance

### Faster to Zero

**2021**

**100%**

CarbonNeutral®  
Print Books & Journals

**75%**

Plastics removed from journal packaging

**2024**

**100%**

CarbonNeutral®  
Across all products

**100%**

Plastics removed from journal packaging

**2030**

**T&F Net Zero and Zero Waste**

### Accessibility

'Connecting the Disconnected'

The leading publisher for accessible content:

**121,000**

Content uses by users with a disability in 2021

Certified by the leading body ASPIRE and the winner of the 2021 ABC International Excellence Award for Accessible Publishing

### Driving Diversity of Global Authors

4-year author CAGR by region

**16%** Africa

**12%** Central and South America

**10%** India

**5%** Asia

**18%** China

**9%** Middle East

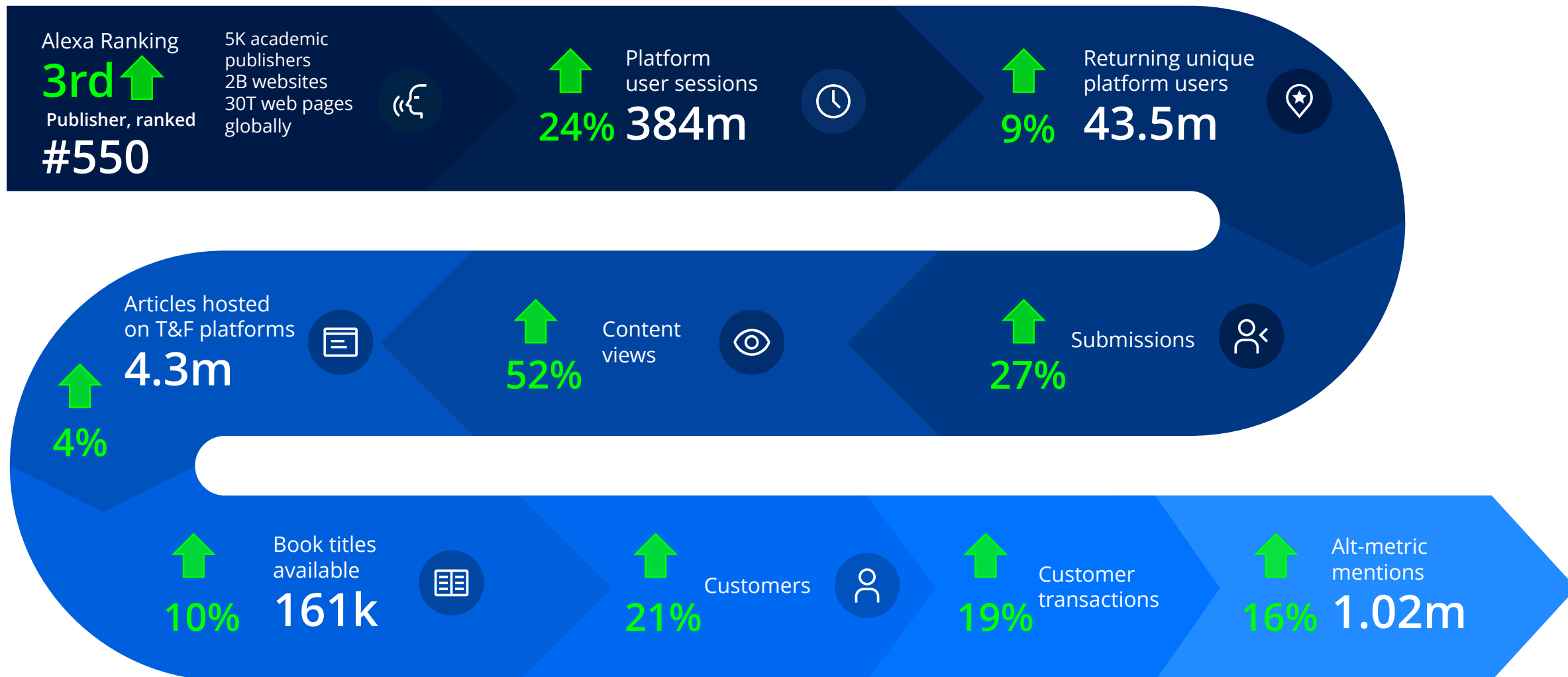
**1%** Australasia

**1%** Europe

**2%** North America

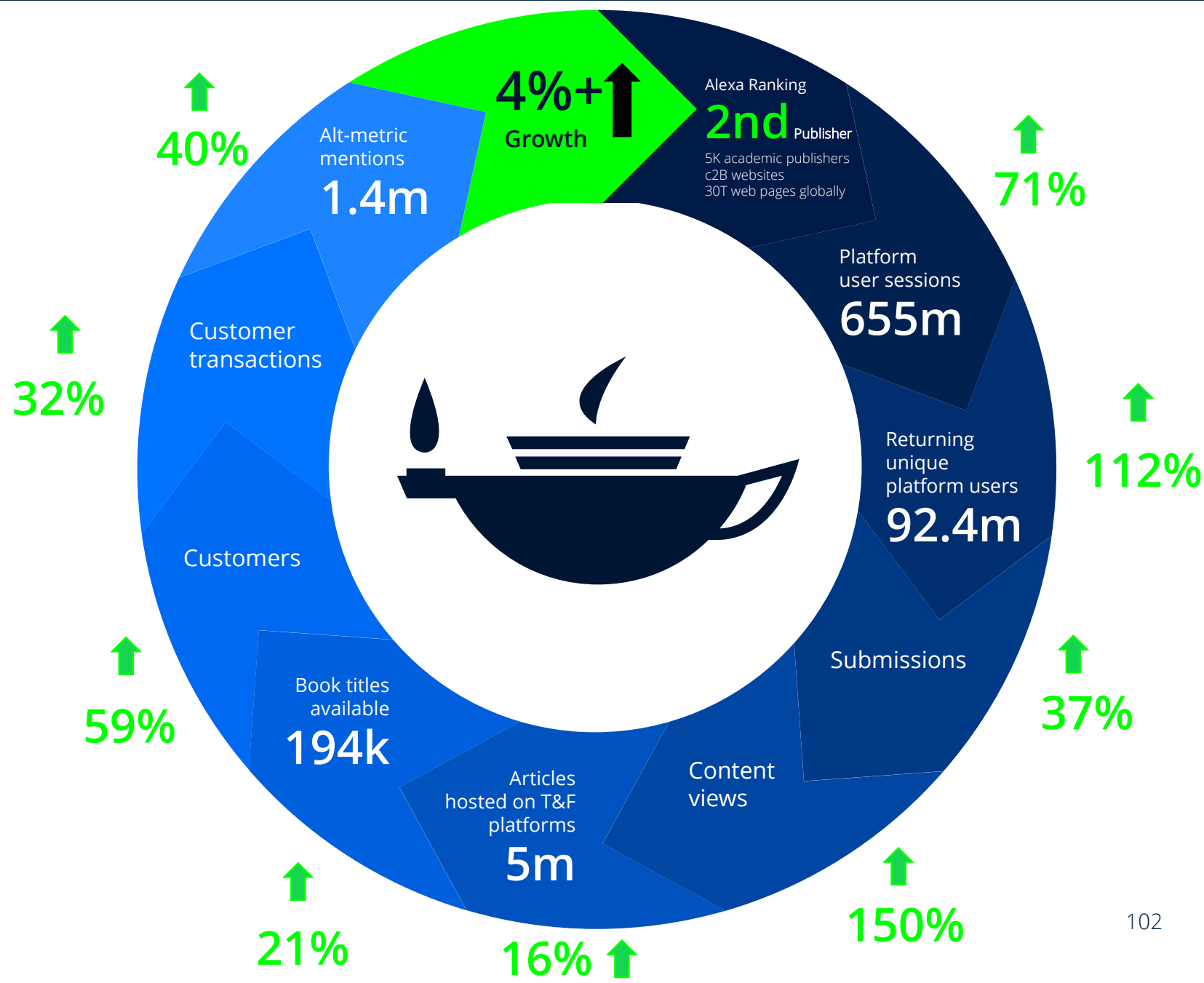


# 2020 T&F Value Chain Metrics



# Value Chain Metrics – 2024

Increase against 2020



# Summary

## Taylor & Francis: A Global Knowledge Brand

- Serving a Growing Knowledge Economy  
£501B to £1.6T since 2000
- Modern Data and Technology Foundations
- Curating a Deep, Highly Diverse, Specialist  
Corpus of Content Assets 5M+ Units
- Expanding Addressable Market to Academic R&D  
c£60B Annual Research Funding & £13B Library  
Spend on Books and Journals
- Responding to Diversity of  
Customer Preferences
- Mitigating Risks to Changes in  
Funding
- Preserving Value with Library  
Customers
- Elevating Revenue Growth Target  
to 4%+ by YE 2024

**At Run Rate Growth in Every Revenue Category to Achieve 4%+ Growth Target**

# Q&A

# Thank You