



**XDS** | EXTERNAL  
DEVELOPMENT  
SUMMIT

# 2021 INSIGHTS

ON EXTERNAL DEVELOPMENT FOR THE VIDEO GAME INDUSTRY



External development refers to the practice of video game Developers/Publishers (buyers) leveraging Service Providers (sellers) in any aspect of development, including but not limited to art, animation, cinematics, audio, engineering, porting, game development, UX-UI, motion capture, QA, localization, and VFX. External development is an established pillar of the larger games development process. This report is intended to identify trends in external development and provide insight into the most significant concerns facing both buyers and sellers.

The 2021 Insights report also includes two important new additions. First, insights into the early impact of the COVID-19 pandemic. And second, a new section devoted to Inclusivity, Equity & Diversity in external development

The statistics in this report were derived anonymously from nearly 200 submissions from industry professionals worldwide. Research and data gathered to establish this report was collected by the organizers of the External Development Summit (XDS), with contributions from the **XDS Advisory Committee**.

*Permission must be requested if you would like to use this information in public articles or presentations.*

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## Who We Are

**External Development Summit (XDS)** is the only annual, international games industry event held in Canada, with a primary focus on external development for Art, Animation, Audio, Engineering, QA and Localization. Each year, a broad community of game Developers / Publishers and Service Providers gather to contribute to the advancement of the video game industry through collaboration, sharing of best practices, networking, and the delivery of a high-caliber, educational program.

XDS21 Adapt will take place on September 14-17, 2021. For regular event updates **sign up for our newsletter**.



**2020 GUEST AUTHOR**

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**2020 CO-AUTHOR**

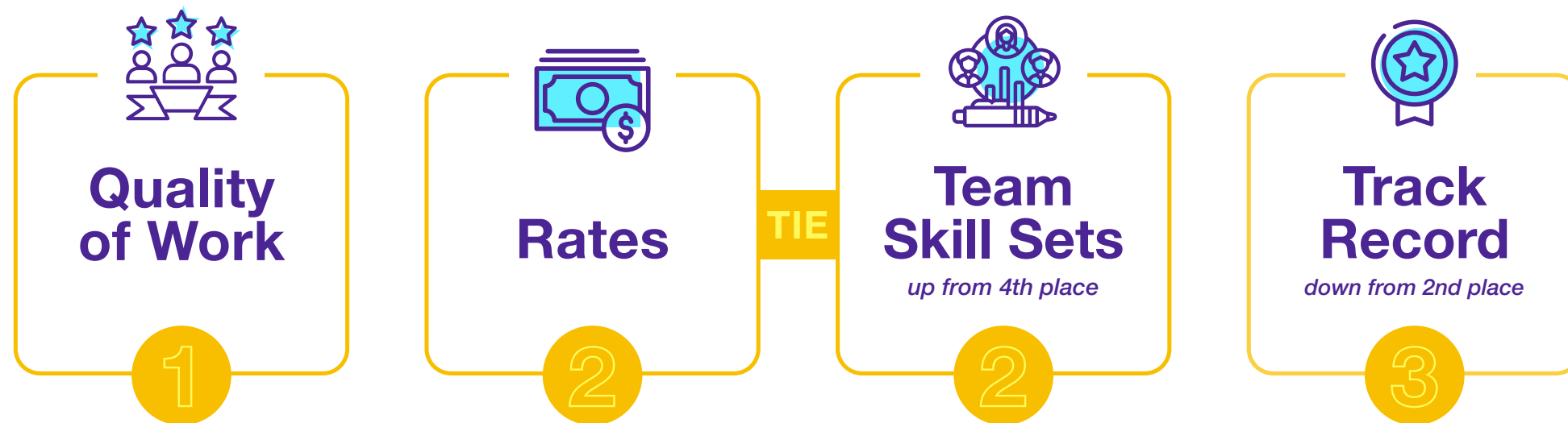
**Chris Wren**

Head of XDI Events, EA  
Chair, XDS Advisory Committee

*The data in this report was collected between the dates of December 16, 2020 and January 31, 2021. Note that some data tables throughout this report may not add to a total % of 100 due to rounding.*

# Top 3 most important factors

Developer/Publishers seek when selecting a Service Provider



**Quality of Work** continues to be the most important factor year over year, with over 80% of respondents selecting it (though this is a decrease from 90% last year).

**Team Skill Sets** increased in importance compared to last year, replacing **Track Record** as the factor tied for 2nd place.

**Increased demand**  
 45% of Service Providers have seen an increased demand from their existing customers since the COVID-19 pandemic began.

**Diversity, Equity, & Inclusivity**  
 51% of Developers/Publishers consider it important that their Service Providers have diversity, equity, & inclusivity objectives in the workplace

#1 Reason Companies Engage Service Providers:  
**Build more content & features\***



## SERVICE PROVIDER OVERVIEW

## Percentage of Providers Offering Each Service

### Service Providers are specializing.

The number of respondents stayed the same as last year, but the number of services each company offers declined across the board (with the notable exception of Engineering). This suggests that Service Providers are narrowing their focus in prioritizing certain areas of expertise over offering a broad multi-service line strategy.

#### **\*Notice a lot of yellow compared to last year?**

This doesn't mean that fewer services are available for sale – it means that this year's pool of respondents offered fewer services each. In other words, this year's respondents tended to be more niche providers vs. multi-service line providers.

	2021	2020	2019
Art	70% ↓	74%	65%
Animation	44% ↓	57%	44%
Game Development – Mobile	35% ↓	39%	20%
Game Development – Console	32% ↓	36%	12%
Game Development – PC/Online	32% ↓	39%	16%
Engineering (server side, front end, web development, etc.)	27% ↑	20%	14%
Game Development – VR/AR	24% ↓	35%	14%
Cinematics/Trailers/VFX	23% ↓	34%	27%
UI/UX	19% ↓	21%	27%
QA	15% ↓	22%	10%
Localization	8% ↓	15%	12%
Audio	8% ↓	15%	13%
Other (MoCap, Creative Development)	8% ↓	14%	13%

## SERVICE PROVIDER OVERVIEW



## the marketplace

## Significant change in the Service Provider landscape

Half of the Service Providers who responded to this year's survey did so for the **FIRST TIME** - which was also true last year. Though many Service Providers have disappeared over the last year due to closures or M&A activity, those disappearances were more than offset by new Service Providers entering the market.

## employees



**50% have LESS THAN 50 EMPLOYEES**

while 12% have more than 500 EMPLOYEES\*

\*of Service Providers surveyed

## locations



**20%**

of Service Provider respondents are planning to open a **NEW LOCATION** this year

SERVICE PROVIDER OVERVIEW

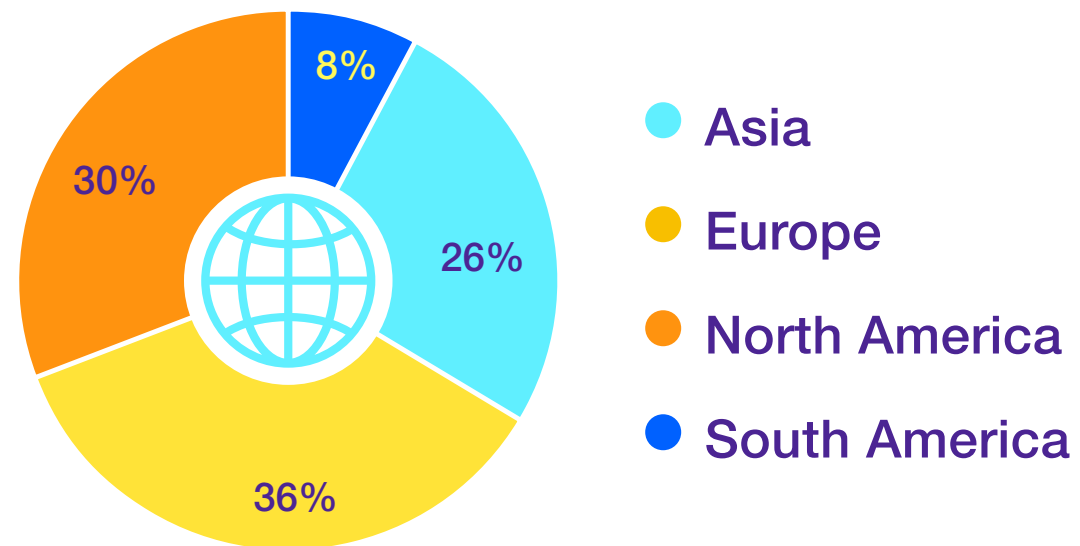


international

## Global Representation

This year's survey includes perspectives from a broad range of Service Providers, both by location and by scale. This variety gives us confidence that the data in this report is **genuinely global** — and it also gives us insight into the health of the industry.


response by region



- Asia
- Europe
- North America
- South America

locations

**45%**   
of Service Providers have **ONE LOCATION**

**10%**   
operate out of more than **5 LOCATIONS**

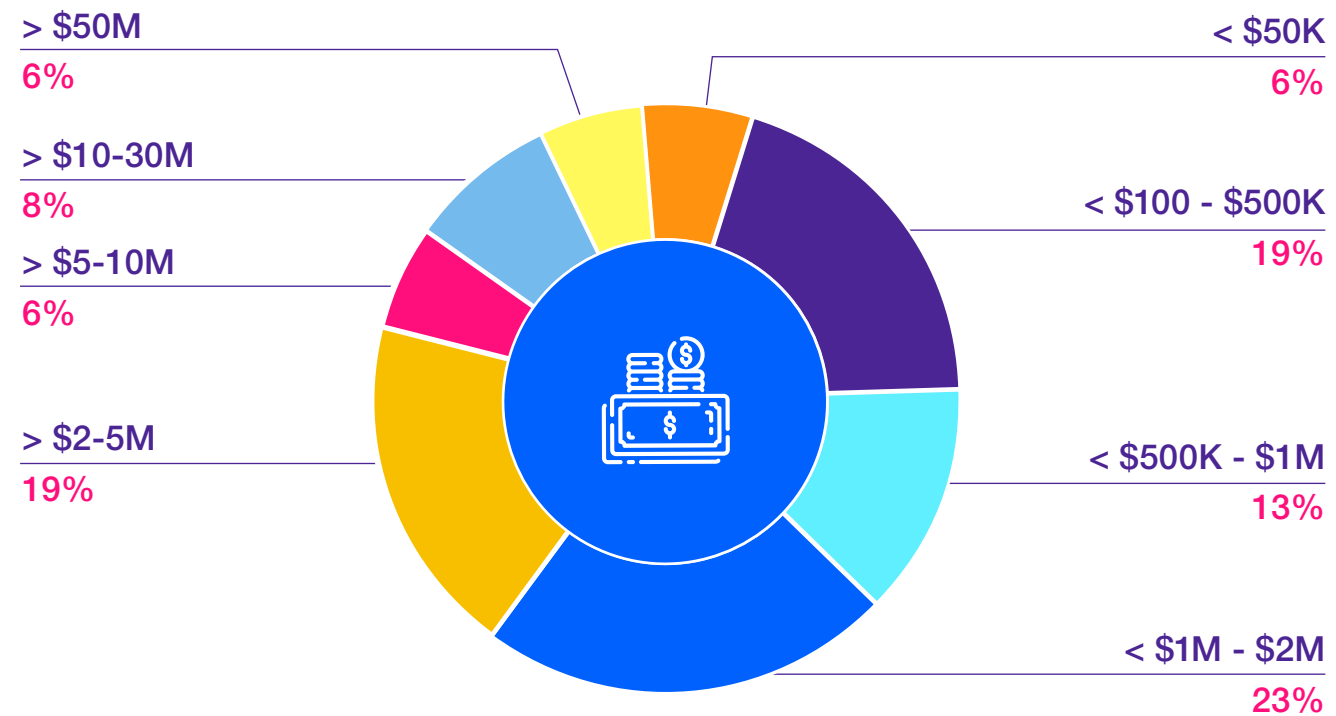
SERVICE PROVIDER OVERVIEW



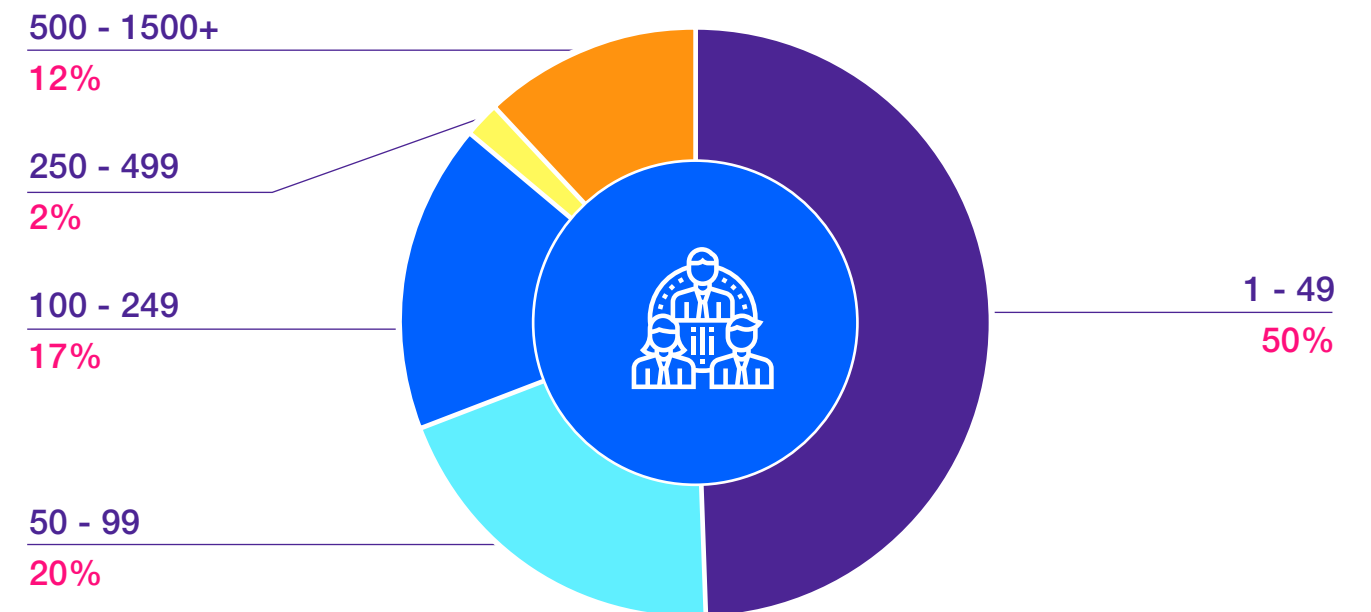
# Industry Landscape

Concern over market consolidation and the industry being “taken over by a few big players” was common among both Service Providers and Developers/Publishers. However, the wide variety among Service Providers who participated in this year’s survey suggests a vibrant and diverse industry landscape.

Response by Annual Revenue



Response by Number of Employees

















## DEVELOPER/PUBLISHER OVERVIEW

## Percentage of Developer/ Publisher Platform Focus

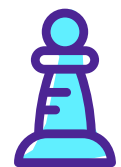
Console and PC/Browser games remained the primary focus of Developers/Publishers, with mobile following behind. The decline in mobile may indicate market consolidation rather than a decline in interest. By contrast, the accelerated decline in focus year over year in VR/AR combined with a *lack* of market consolidation may indicate a wider crisis for VR/AR as a platform. Streaming/Cloud games continues to surge, confirming predictions from last year's report that these platforms are a force to be reckoned with in External Development.

	2021	2020	2019
 Console games	72% 	70%	67%
 PC/Browser games	61% 	67%	40%
 Mobile games	40% 	56%	29%
 Streaming/Cloud games	13% 	7%	—
 VR/AR games	10% 	15%	17%
 Facebook games	1% 	2%	2%

DEVELOPER/PUBLISHER OVERVIEW



the marketplace



**New players have entered the game.**

Nearly half (48%) of all Developers/Publishers who contributed to this year's survey were **first-time contributors**. Market consolidation through M&A appears to be offset by the many new studios that opened their doors last year.

size of external scales

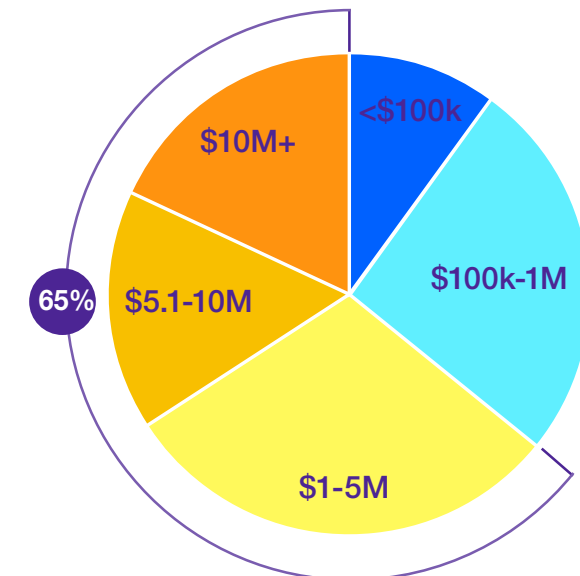


Number of Service Providers Developers/Publishers use

**26% 5 or less**

**55% 10 or more**

annual spend



**Opportunities for All**  
 65% of Developer/Publishers had outsource budgets in excess of \$1M USD



**External Development**

**Industry Observations**



## How disruptive was COVID-19 to the business of External Development?



Surprisingly, the answer is:  
*less than you might expect.*

There is consensus among Service Providers and Developers/Publishers that the sudden change to remote work/WFH was a monumental challenge. However, it is a challenge that we as an industry were able to overcome.

**70% of Service Providers experienced either *no change*** in their ability to serve their customers due to COVID-19 or **even a *positive impact***. Removing the requirement to have workers in the same space made it possible for both Service Providers and Developers/Publishers to source talent from around the world. Increased player demand for games also resulted in increased demand among Developers/Publishers for external support.



90% OR MORE OF THEIR  
TEAM CURRENTLY WFH:

79%

DEVELOPERS/  
PUBLISHERS

VS

67%

SERVICE  
PROVIDERS

SERVICE PROVIDERS REPORT:  
Pandemic's impact to provide services

9%

SIGNIFICANTLY  
POSITIVE  
IMPACT

VS

5%

SIGNIFICANTLY  
NEGATIVE  
IMPACT



## What are the biggest challenges you faced due to the COVID-19 Pandemic?

### SERVICE PROVIDERS



Restrictions on travel



Transitioning to remote working/WFH



Recruiting talent



Discovering new customers to work with

### DEVELOPERS / PUBLISHERS



Restrictions on travel



Supporting current external partners as they transitioned to remote working/WFH



Security risks due to remote working/WFH



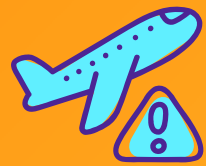
Onboarding new external partners

### what respondents said

*“WFH in terms of talent acquisition is a complete game changer.”*

*“The sudden need to use these tools across the board showed us that remote work was easier to implement than we had anticipated.”*





## The ongoing impact of COVID-19

The **inability to travel** is the main source of anxiety for both Developers/Publishers and Service Providers. The lack of in-person connection has far-reaching implications for sales, onboarding, training, communication tools, information security, pipeline management, and much more.

Developers/Publishers and Service Providers are deeply divided in their expectations of what's to come. We as an industry have proven that we can adapt to the sudden changes demanded by COVID-19 — but how we succeed in the “*new normal*” remains to be seen.

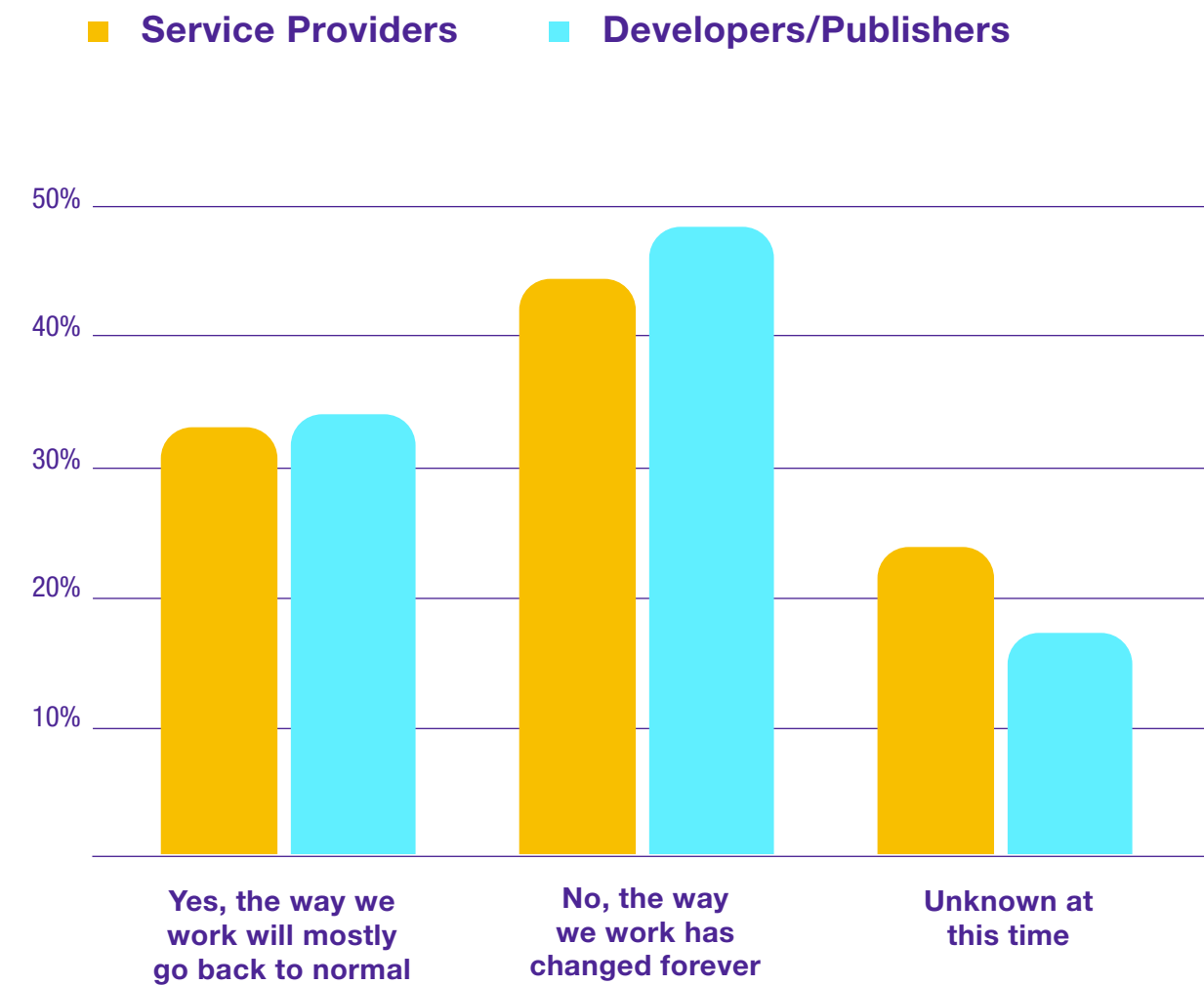
### what respondents said

*“We now understand everyone can work remotely. External development is how we’re all currently working.”*

*“There is a new Normal. People are going to partially be working from home and also work at the studio. It’s never going to be fully WFH or everyone from office. It will be the best of both worlds.”*

*“I am anticipating... a shift in focus to improving engagement documentation, production communication standards, and a move to partners that are able to operate without semi-annual training visits.”*

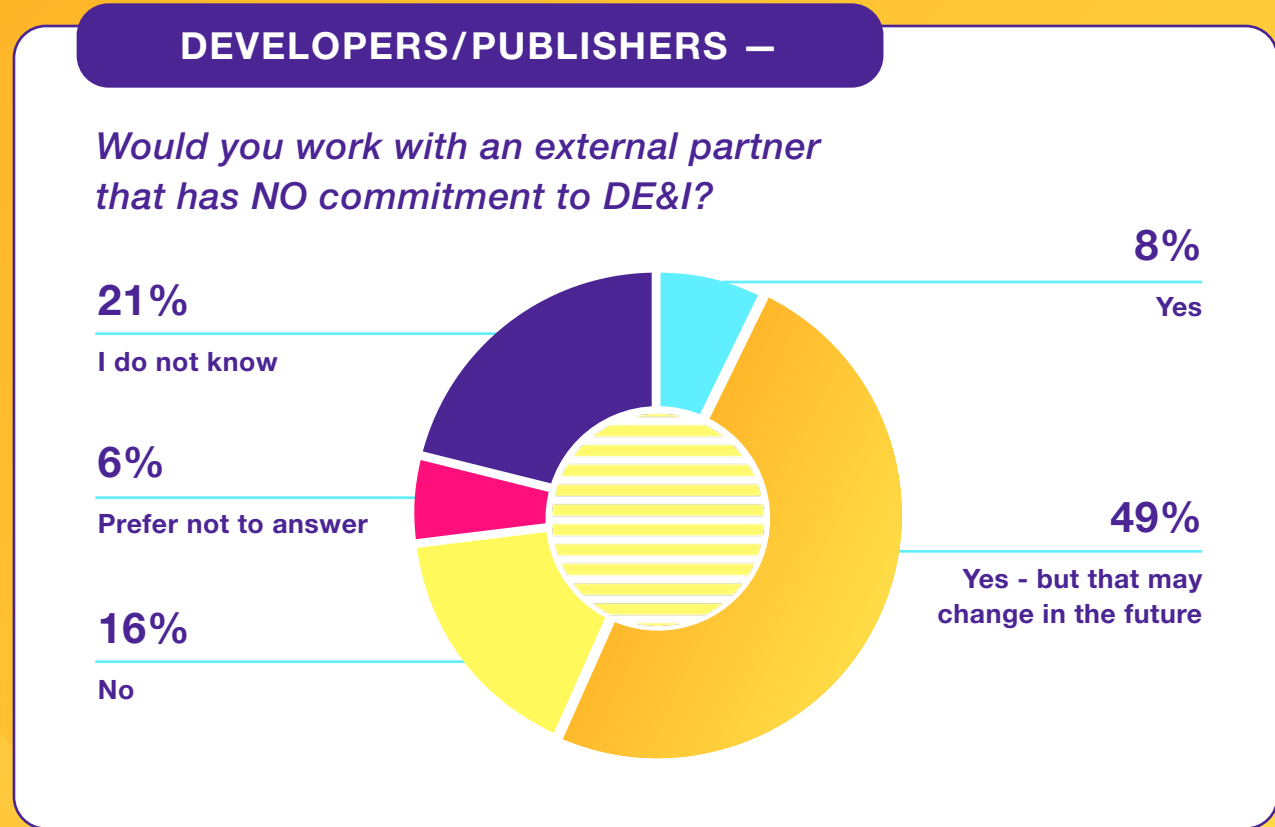
*When the pandemic is over, do you expect the way you work with your partners to return to the way it was before COVID-19?*



## The Importance of Diversity, Equity and Inclusion

78% of Developers/Publishers have diversity, equity and inclusivity (DE&I) objectives within the workplace. 53% of Service Providers have similar DE&I objectives, with **another 16%** planning to implement them in the future. Companies on both sides increasingly recognize that making DE&I a priority can open up talent pools, increase retention, foster innovation, and create more desirable workplaces.

The commitment by many Developers/Publishers and Service Providers **internally** to DE&I is well established. It remains to be seen how, when, and if **externally** DE&I will become an important factor in how Developers/Publishers and Service Providers choose their partners.



**what respondents said**

*“I would work with a company that does not have a commitment to diversity, but I would actively promote a company that does.”*

*“As someone who myself benefits from a good DE&I policy with my employer, our budgets and deadlines do not support this level of assessment on external partners.”*

*“Definitely important to our studio but needs more awareness, training and support at all levels!”*

**▶ Watch & learn more**

**A Discussion About Allyship in External Development**



## Mergers and Acquisitions

Despite vocal concerns from some Service Providers about market consolidation, survey data indicates that **M&A activity is down** across the board. This suggests that market consolidation is not an industry-wide phenomenon — instead, it is being driven by a few key players. Of the 23 acquisitions reported, **15 of them came from only 3 companies**. The remaining 8 acquisitions were reported by 8 different Service Providers — meaning they each acquired one company last year. The ability to acquire another company appears to be either out of reach or not of interest for **90% of the Service Provider community**.

Service Providers with **Development and Engineering expertise are increasingly of interest** when it comes to acquisitions. This is a dramatic change compared to previous years, which tended to favour animation, cinematics, and VFX more highly.

**11%** of respondents have acquired Service Providers in the past 12 months, **which is slightly less than last year (12%)**

**39%** of respondents are open to being acquired, which is **down for the second year in a row**  
*22% could not disclose*

**15%** of Service Providers are looking for new acquisitions, which is **down 6% from last year**  
*20% could not disclose*

**50%** of Service Providers have been approached for M&A conversations, which is **up 8% from last year**  
*16% could not disclose*



### Top Services Companies are Interested in Acquiring

	2021	2020	2019
3D Art	1	1	1 (tie)
Mobile Game Development	2 (tie) ↑	6	7
Console Game Development	2 (tie) ↑	11	8
Engineering	2 (tie) ↑	9	11
Animation	5 (tie) ↓	2	1 (tie)
Cinematics / VFX	5 (tie) ↓	3	3
PC/Online Game Development	5 (tie) ↑	8	9

Concerns about loss of sales due to Developer/Publishers working exclusively with “big” Service Providers should be offset by an important fact: **47% of Developers/Publishers** report that they will be seeking new partners within the next 2 years specifically because they need to diversify their partners.

## TOP REASONS Developers/Publishers Engage Service Providers



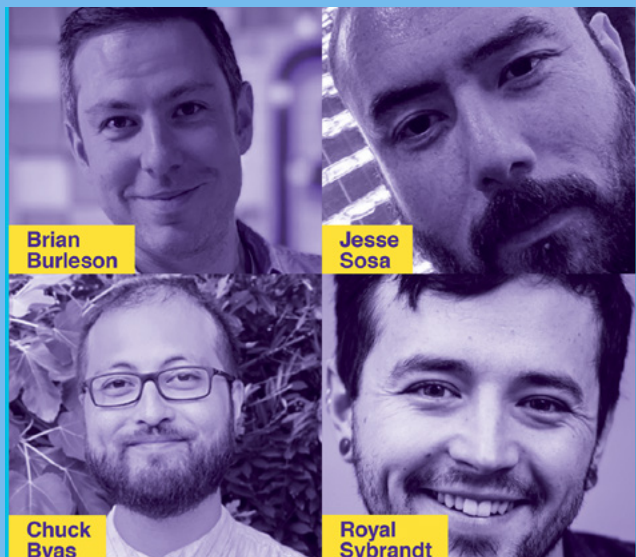
The motivations behind engaging Service Providers have stayed remarkably consistent, demonstrating a consensus among Developer/Publishers about where to find value in External Development. **Building more content and features** has returned to the 1st place position, which may reflect increased player demand for content due to COVID-19 lockdown measures. **Lack of available local resources** has moved down, perhaps due to a new willingness to allow non-local resources to work remotely.

	2021 RANKING		2020 RANKING	2019 RANKING
To build more content and features	1	↑	2	1
Flexible skill-set ramp-up/ramp-down	2	↓	1	2
Cost savings	3		3	3
Access hard-to-find skills/capabilities	4	↑	5	4
Support content needs for live services	5	↑	6	6
Lack of available local resources	6	↓	4	4
Speed up development through follow the sun (24x7) production model	7		7	7

▶ Watch & learn more

### Gearbox and Keywords: Successful Co-Development Takes More Than Trust

This video unpacks the subtle art of relationship-building in game production, the lessons learned from giving up control, the growth opportunity of pain points, and the importance of checking your ego at the door!







## Percentage of companies sending Art Disciplines Externally



**3D art asset production remains a cornerstone** of our industry, as Developers/Publishers increasingly rely on external partners year over year — including for 3D levels, which historically has trailed behind other 3D services. Developer/Publisher willingness to outsource **2D services has also increased significantly**, with notable surges in 2D Environments and Concept Art. Even for the services that in the past were seen as “difficult to outsource” — such as UI/UX and VFX — most Developer/Publishers rely on at least some external support.

The data tell us that for most Developers/Publishers, **game development without external art support is simply not an option**. This helps explain why lack of availability remains a top concern among Developers/Publishers — and why COVID-19’s disruption to the established ways of doing business is so threatening. Quite simply: most Developers/Publishers need external art pipelines to work.

### Did you know?

The highest percentage of disciplines that are outsourced entirely:

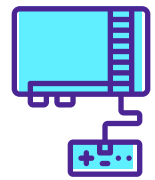
- Motion Capture**
- Cinematics**
- 3D weapons**

Highest percentage of disciplines that are a mix of internal and external resources:

- 3D Characters**
- 3D Animation**
- 3D Environments**

Disciplines	2021		2020	2019
3D Characters	96%	↑	91%	88%
3D Weapons	94%	↑	91%	90%
3D Props	93%	–	93%	93%
3D Vehicles	92%	↓	95%	86%
3D Animation	89%	↑	80%	60%
Animation - Cutscenes	86%	↑	78%	52%
Animation - Cinematics	86%	↑	85%	65%
2D Environments	84%	↑	67%	39%
Concept Art	82%	↑	70%	40%
2D Animation	81%	↑	73%	41%
2D Characters	81%	↑	80%	53%
2D Props	80%	↑	75%	56%
2D Vehicles	79%	↑	74%	56%
Motion Capture	78%	↓	80%	49%
2D Weapons	77%	↑	75%	55%
2D Levels (Mood Concepts)	72%	↑	68%	37%
3D Levels	67%	↑	57%	36%
UI/UX	64%	↑	57%	23%
VFX	51%	↑	50%	27%





## Percent of companies sending Engineering Disciplines Externally

**External Level Design/Building** continues to surge in popularity among Developers/Publishers — joining Web Development, Console Game Modes, and Full SKU console development as a core outsource engineering disciplines. Tools development, Player telemetry, and Server-Side Development all declined sharply.



### TRUSTED PARTNERS

Of Developers/Publishers who use outsource engineering, **95%** use primarily the same partners year over year



**42%**

Of Developers/Publishers don't use outsource engineering at all

Disciplines	2021		2020	2019
Web development	52%	↑	49%	47%
Console game modes	48%	↑	41%	18%
Level Design/building	45%	↑	29%	14%
Full SKU console development	45%	↑	43%	14%
Front-end development	35%	↓	37%	20%
Tools development	34%	↓	41%	31%
Player Telemetry (tracking & analysis)	29%	↓	42%	20%
Server-side development	28%	↓	36%	16%
Rapid prototyping	27%	↑	23%	6%
Engine development	26%	↓	34%	12%

*Note: the 2019 percentages reflect engineering disciplines that were fully outsourced only. In 2020 and again in 2021, we have included engineering disciplines that are fully or partially outsourced.*

## Service Providers Utilizing Each Other's Services

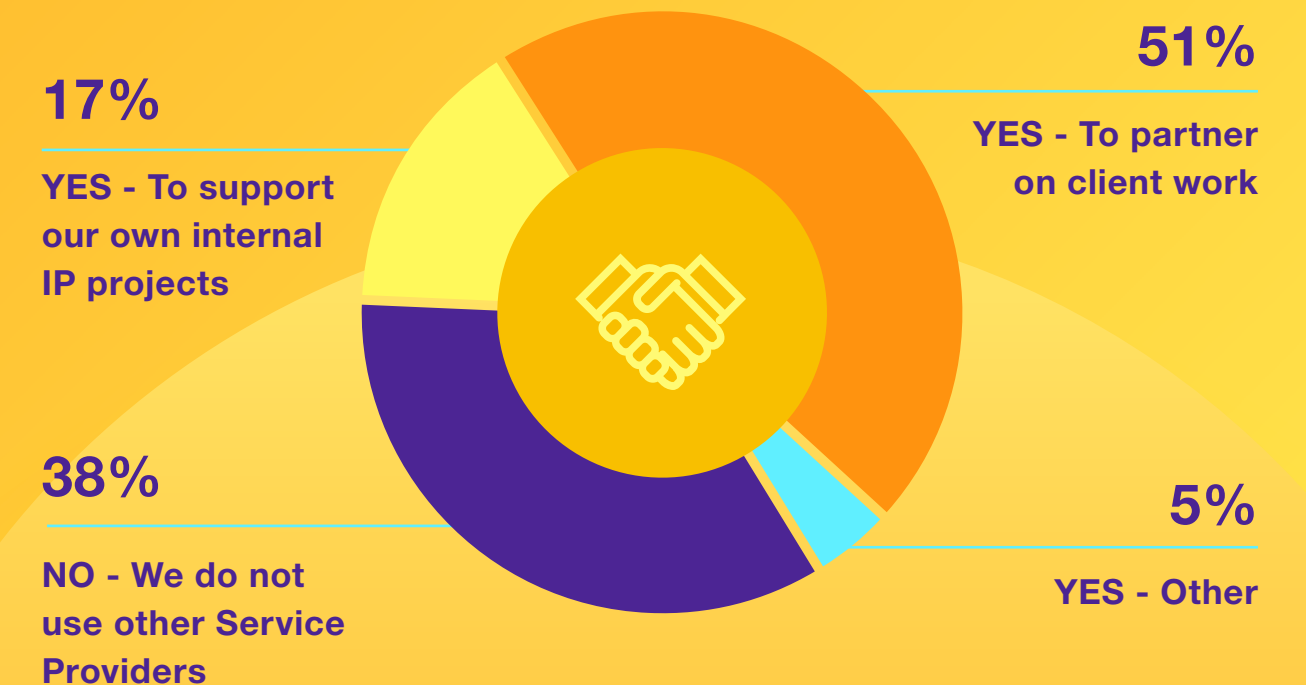
At recent XDS events we observed an **increased number of Service Providers attending in order to discover services**. We therefore asked if they engage with other Service Providers, and in what capacity. A total of **68% responded that they do work with other service providers** (6% increase YoY). Of that, **51% utilize others service providers to partner on client work** (ie. add capacity and/or add services), and **17% leverage others for their own IP development** (6% increase YoY), while 5% indicated "Other".

### DEVELOPMENT

**31% of Services Providers are working on THEIR OWN GAME IP**  
(8% increase YoY)

An additional 25% are considering doing the same.

Percent of Service Providers partnering with other Service Providers





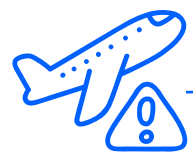
Overview of the

# Business Relationship



## How do you meet the majority of your partners?

Reputation remains important as referrals continue to be the primary method for connecting Service Providers and Developers/Publishers. However, a relentless demand for new content from Developers/Publishers last year created an equally relentless demand for new partners. **Service Providers reported a spike in the number of buyers reaching out directly**, which is supported by the increase in the number of Developers/Publishers using cold-calls to find new partners.



### Less Handshakes, More Business

53% of Developer/Publishers selected "Restrictions on travel" as the #1 challenge they face by due to COVID-19.



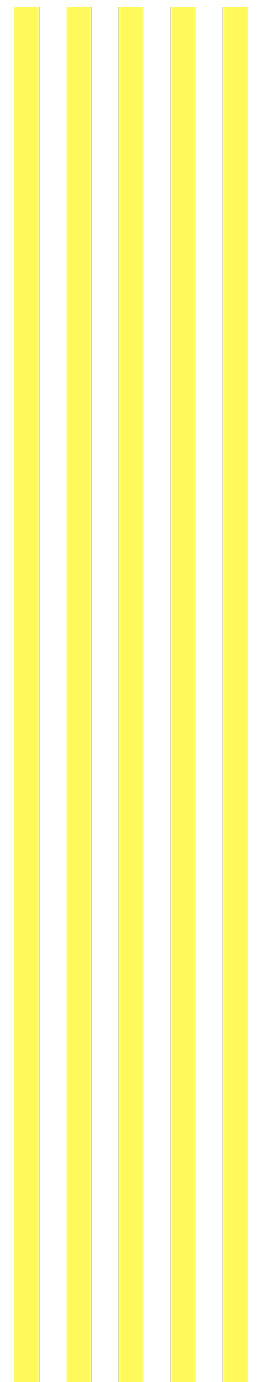
### Industry events remain vital.

Find your next partner at XDS21 Adapt!

Reported by SERVICE PROVIDERS	2021		2020	2019
Referrals	30%	↓	35%	29%
Games industry events	30%	↓	32%	29%
Buyer reaches out	16%	↑	8%	16%
Online research	15%	↓	16%	25%
Internal company resources	7%	↓	8%	1%
Other	2%	↑	1%	0%

Reported by DEVELOPERS / PUBLISHERS*	2021		2020	2019
Internal referrals & company resources	68%	↑	42%	28%
Games industry events	60%	↑	22%	44%
External referrals (industry wide)	42%	↑	17%	6%
External partner reach-out / cold-call	27%	↑	3%	0%
Networking sites	25%	↑	6%	4%
Online search engine	14%	↑	3%	2%
Other	6%		6%	14%
Industry news/media	3%		3%	2%

\*Why did the percentages jump so much in 2021?  
For this year's survey, respondents were able to make multiple selections



## SERVICE PROVIDERS: Factors for choosing client partners

Securing long-term, repeat customers remains the top priority for Service Providers when choosing clients, followed by **prestige and rates**. Service Providers are remarkably consistent YoY, ranking the same list in the same order as last year — despite the fact that *half* of the Service Providers who responded this year are new.

**67%** of Services Providers expect to re-negotiate rates with their clients within the next year.  
*(a slight decrease from last year)*

▶ Watch & learn more

FIRESIDE CHAT WITH  
**Amy Hennig**

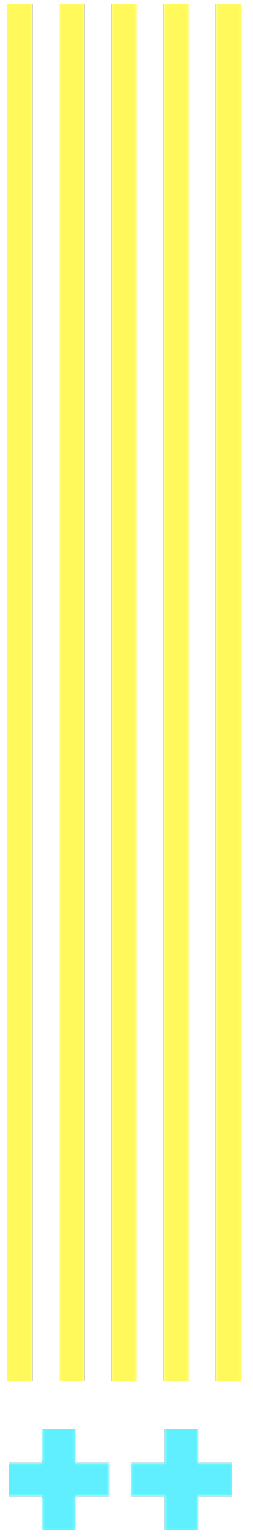
Innovator and storyteller Amy Hennig shares her thoughts on how the industry has matured, and why it's more important than ever to **find and nurture** partnerships that will help our industry to thrive into the future.



	2021 RANKING	2020 RANKING
Potential for future projects	65% ↓	74%
Prestige of project/client	52% ↓	53%
Rates the client can pay	50% ↓	51%
Availability of resources to accommodate client needs	39% ↑	38%
Learning opportunity	27% ↓	30%
Length of engagement	21% ↓	27%
Size of engagement	17% ↓	23%

**Seeing a lot of yellow?**

*This indicates a broader diversity of responses. Everyone could choose 3, and taken as a **group** the same factors as last year were identified as most important. Taken **individually**, however, the combination of factors each respondent chose was more varied than last year.*






## DEVELOPERS/PUBLISHERS: Factors considered when selecting an external partner



**Quality of Work** remains the top criteria when evaluating Service Providers, though notably fewer Developers/Publishers selected this in top 3 choices (80% this year compared to 90% last year). The rankings had minor fluctuations compared to last year, though with a two notable callouts: **Track record and Security requirements**. Both of these factors declined in importance, which may be indicative of relaxed security requirements due to COVID-19 and content-hungry Developer/Publishers being less selective about track record.

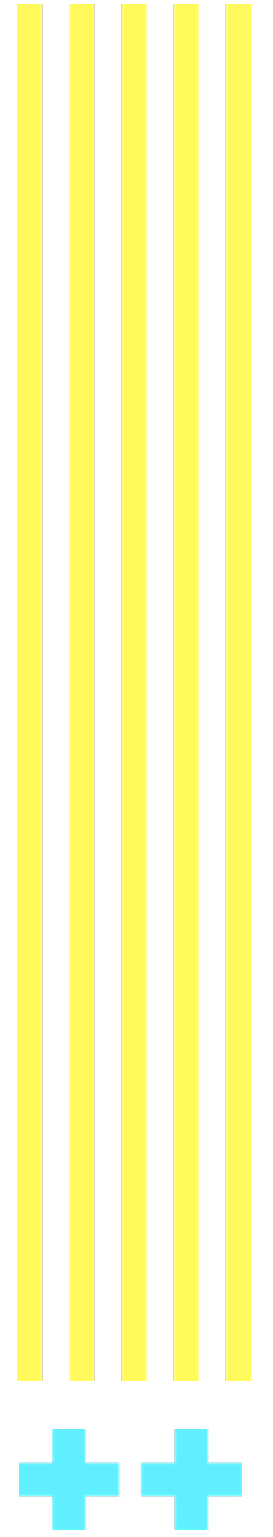
 **Watch & learn more**

THROWBACK FROM XDS 2018!  
**“The Compound Interest Of  
 Expertise When Retaining a  
 Team Saves a Studio Money”**

Philip Dennison from Monolith  
 Productions espouses that it’s often  
 cheaper to keep talent on retainer, even  
 when you can’t always keep them busy.



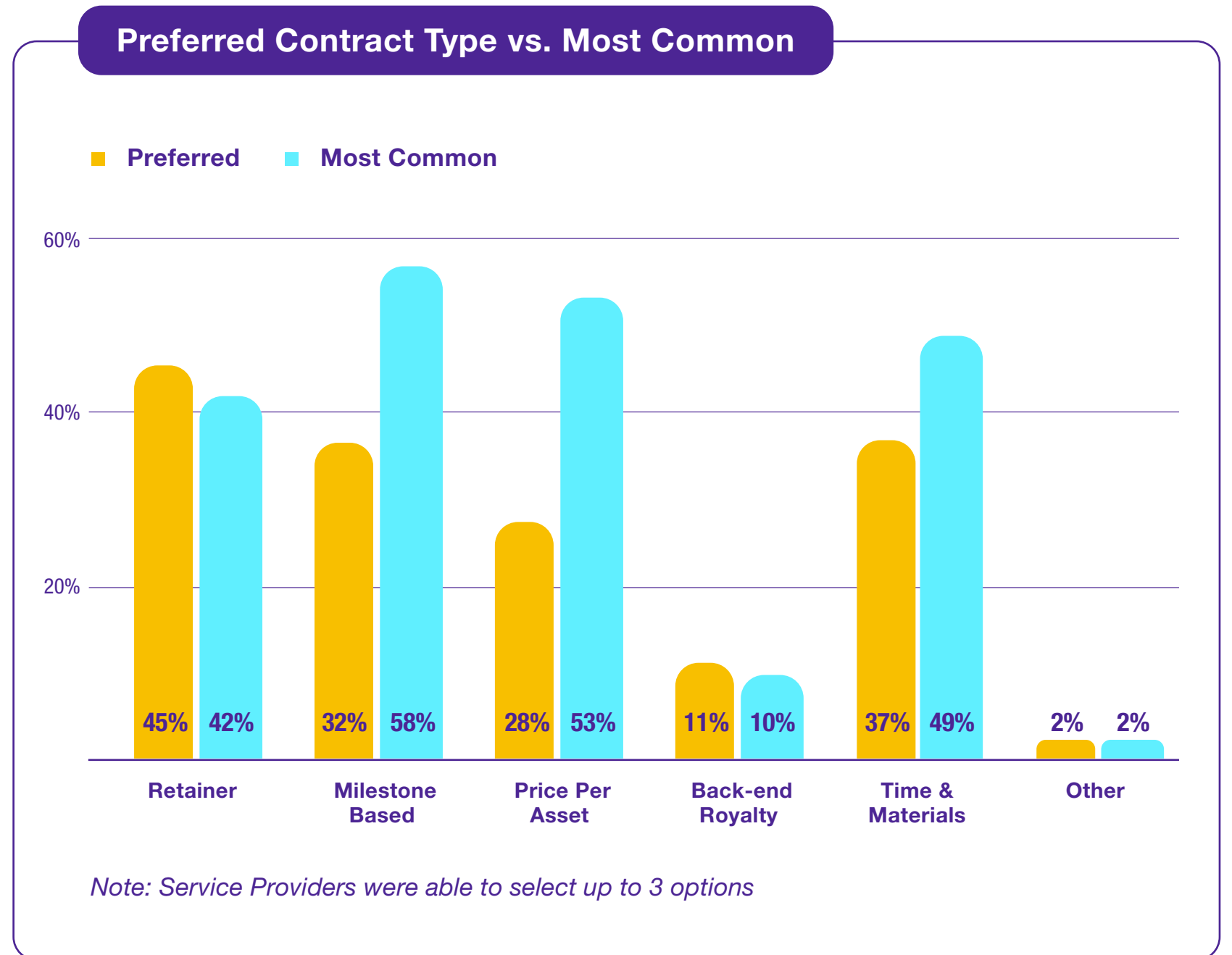
	2021 RANKING	2020 RANKING	2019 RANKING
Quality of Work (Assets, code, etc.)	1	1	1
Rates	2	2	4
Team skill sets	3 	4	2
Track record (previous clients, projects)	4 	2	5
Language/communication skills	5	5	3
Current established relationship	6	6	—
Reputation in industry	7 	8	6
Geographic and/or time zone proximity	8 	9	12
Security requirements	9 	7	8
Studio leadership	10	10 (tie)	10
Financial stability	11 	12	10
Size of company	12 	10 (tie)	14
Partner’s diversity & inclusion objectives	13	13	—



## CONTRACTUAL RELATIONSHIPS: Preference vs. Reality for Service Providers

This year, rather than compare the types of contractual relationships Service Providers prefer versus what Developers/Publishers prefer, we instead decided to examine **what Service Providers prefer versus what they actually get**. This more clearly reveals the disconnects (and alignments) between what Service Providers are looking for and what Developers/Publishers are willing to offer.

By focusing on the gaps between what is preferred vs what is most common, we see that Service Providers who want retainer agreements and back-end royalty agreements **have had success in being able to get them**. However, we also see that Milestone based contracts and Price per asset contracts are what Service Providers *can get* — not necessarily what they *want*.





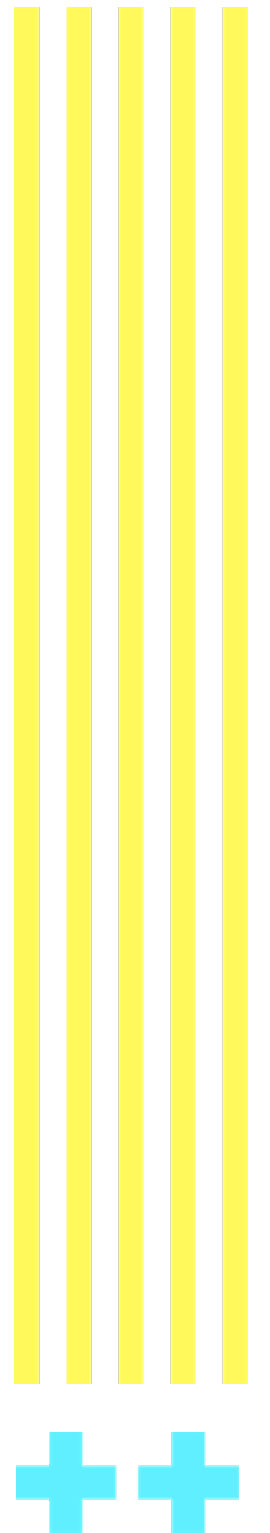
## Top issues encountered in external development

A theme of this year’s report is the insatiable demand by Developers/ Publishers for more content. And for the first time in the history of the Insights Report, **lack of capacity** is the #1 issue chosen by Developers/Publishers, followed closely by **speed and volume of iteration**. On a positive note, **poor quality deliverables** was less of an issue. Service Providers are also feeling this pressure, as issues related to **high-volume content production** on tight deadlines have grown in importance.

Reported by SERVICE PROVIDERS	2021 RANKING	2020 RANKING	2019 RANKING
Shifting project schedules and delays	1	1	1
Excessive Iteration (unplanned)	2 (tie)	2	2
Communication challenges	2 (tie) ↑	3	5
Differences between internal & client time estimates	2 (tie) ↑	5	3
Inadequate documentation & direction	5 ↓	4	5
Pipeline set-up / Acquisition of Client	6	6	—

Reported by DEVELOPERS / PUBLISHERS	2021	2020	2019
Partners lack capacity	1 ↑	2	4
Iteration issues (volume, speed)	2	3	1
Communication challenges	3	4	1
Poor quality deliverables	4 ↓	1	3
Pipeline set-up	5	5	5
Loss of talent	6	6	5



## DEVELOPERS/PUBLISHERS: Frequency of changing partners year-over-year

Developers/Publishers tend to **keep the majority of their external partners** year over year. Data for Art Partners stayed very consistent with the previous two years, however the data for Engineering Partners was very different. The declines seen in the table to the right could be the result of Developers / Publishers ending contracts with current engineering partners — but the more likely reason is that **there are more engineering partners being engaged**. More partners means more change, and this explanation is consistent with the growth in outsource engineering we see elsewhere in this year’s report.

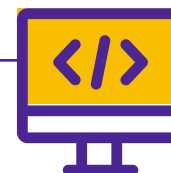
Most popular reasons why Developers/Publishers would change Service Providers in the next 2 years are to:

- 1 Diversify work with other partners
- 2 Increase capacity



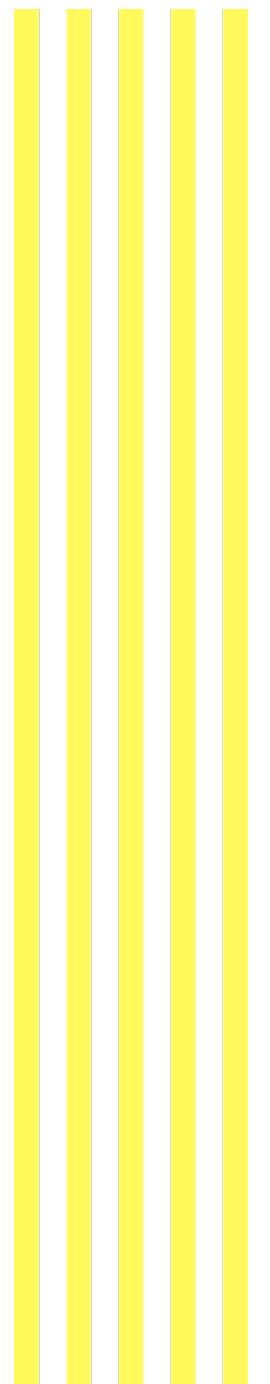
### Art Partners

	2021	2020	2019
100% are the same YoY	4% ↓	8%	4%
75% are the same	67% ↓	68%	71%
50% are the same	23%	23%	24%
< 50% are the same	3%	3%	1%
We don't use art partners	3%	—	—



### Engineering Partners

	2021	2020	2019
100% are the same YoY	10% ↓	14%	4%
75% are the same	27% ↓	60%	71%
50% are the same	18% ↓	26%	24%
< 50% are the same	3% ↑	0%	1%
We don't use art partners	42%	—	—



# TOP TOOLS

## Tools commonly used to support external development

For the first time, **Unity and Unreal have replaced proprietary game engines** as the favoured tool of both Service Providers and Developers/Publishers. Notably, Unreal is significantly more favoured among Developers/Publishers while Unity is more common among Service Providers. **Github has replaced Perforce** as the favoured tool for code review for both Service Providers and Developers/Publisher. **Shotgun continues to grow in importance** – not only as an art review tool but as a project management tool as well.

### TOP EMERGING TOOLS

BY SERVICE PROVIDER:



BY DEVELOPER/PUBLISHER:



### TOP FUTURE TOOLS

BY SERVICE PROVIDER:  
also the top choices last year



BY DEVELOPER/PUBLISHER:



	SERVICE PROVIDERS	DEVELOPERS / PUBLISHERS
<b>Project Management</b>	1 Jira 2 Shotgun 3 Trello	1 Jira 2 Shotgun 3 Excel
<b>Communication</b>	1 Slack 2 Skype/Teams 3 Email	1 Slack 2 Email 3 Skype/Teams
<b>File Transfer</b>	1 Aspera 2 Google Drive 3 Dropbox	1 Perforce 2 Aspera 3 Google Drive
<b>Art Review</b>	1 Shotgun 2 Slack 3 Trello	1 Shotgun 2 Slack 3 Google Drive
<b>Code Review</b>	1 Github Perforce 2 Perforce	1 Github 2 Internal tool
<b>External Company Database</b>	1 Pipedrive 2 Salesforce 3 Hubspot	1 Excel 2 Airtable 3 Shortlist
<b>Engines</b>	1 Unreal 2 Unity 3 Proprietary	1 Unreal 2 Unity 3 Proprietary
<b>Code Version Control</b>	—	1 Perforce 2 Github 3 Internal tool



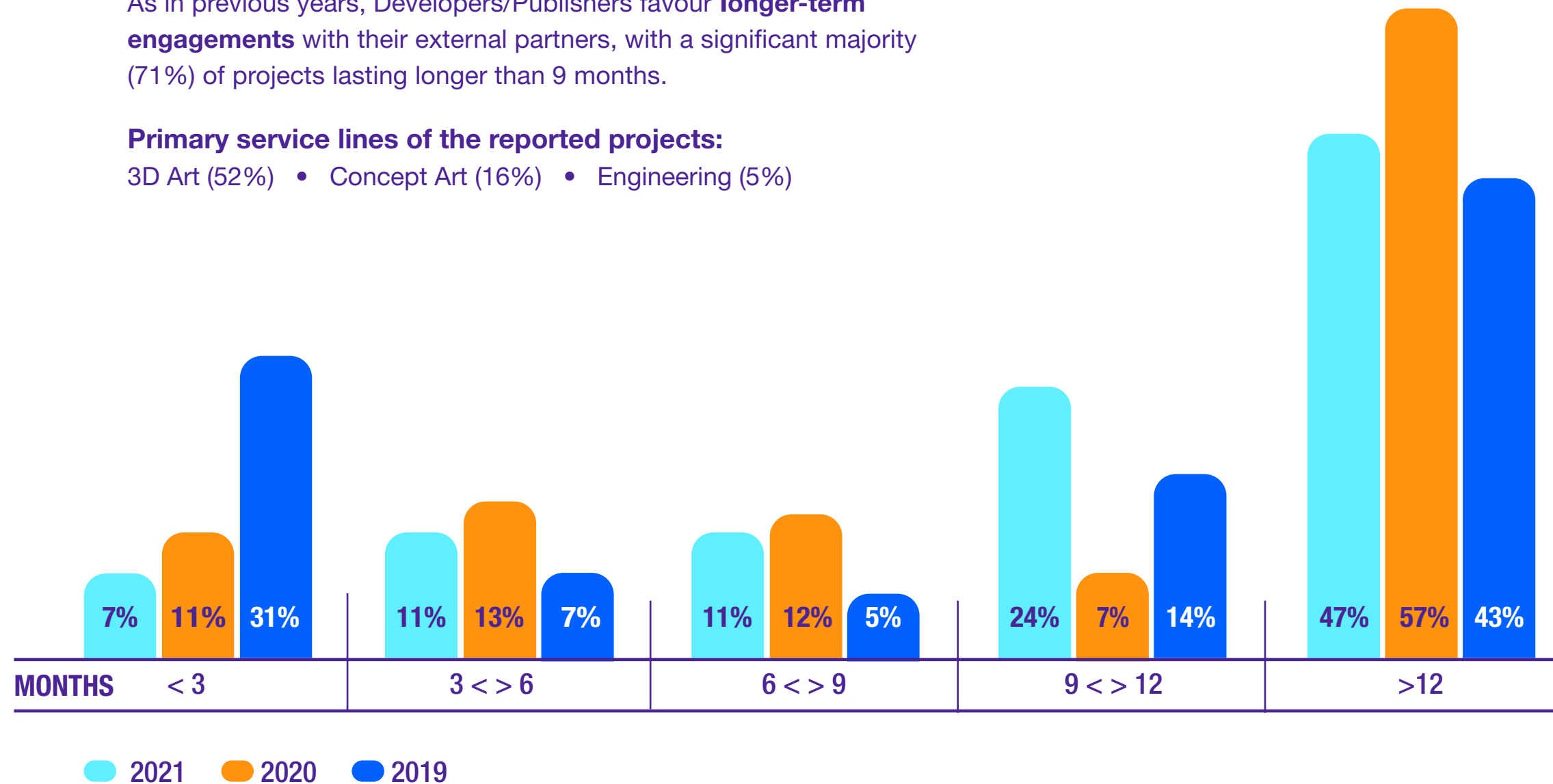


### Percent of Project Engagements by Duration

As in previous years, Developers/Publishers favour **longer-term engagements** with their external partners, with a significant majority (71%) of projects lasting longer than 9 months.

**Primary service lines of the reported projects:**

3D Art (52%) • Concept Art (16%) • Engineering (5%)



**LEADING LOCATIONS FOR SERVICE PROVIDERS\***

**CHINA** (22%)  
**INDIA** (15%)  
**USA** (9%)

\* of projects reported



**2-5 PEOPLE**  
**MOST COMMON EXTERNAL TEAM SIZE AT 31%**

82% of projects had 15 or fewer people on the external team

### Types of Engagements



The number of projects using **full tool/engine pipeline integration** has continued to decline YoY, which is surprising considering that most reported projects are 3D Art outsourcing projects lasting longer than 9 months.

This indicates that a significant number of Developers/Publishers have large-scale, ongoing relationships with external partners who produce assets for use in-game but don't fully integrate those partners into their tool/engine pipelines. This may be a result of increased pipeline challenges due to COVID-19, though this cannot be confirmed with the available data.

	2021	2020	2019
Without tool/engine pipeline	42% <span>↑</span>	40%	27%
With partial tool/engine pipeline integration	33% <span>↑</span>	30%	32%
With full tool/engine pipeline integration	25% <span>↑</span>	30%	40%

### Projects & Platforms



**Browser/PC** development projects continue their **surge**, overtaking console projects for the first time.



**Mobile/Tablet** projects and Cloud-based projects also continued to expand - with Cloud-based projects seeing a **10x growth YoY**.

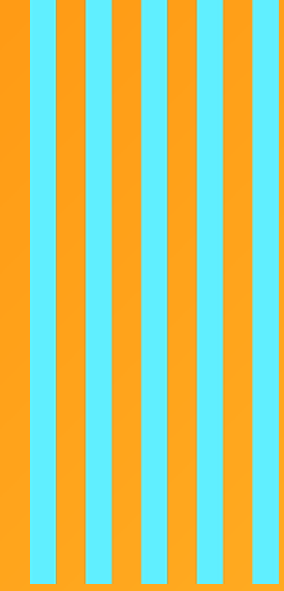


**VR/AR projects have stagnated**, which aligns with other survey data showing a diminished interest by Developers/Publishers to seek external partners for this platform.

	2021	2020	2019
Browser/PC	46% <span>↑</span>	32%	29%
Current Console ( <i>Xbox One, PS4, Switch</i> )	40% <span>↑</span>	34%	59%*
Next-Gen Console ( <i>PS5, Xbox Series X/S</i> )	40% <span>↑</span>	10%	59%*
Mobile/Tablet	25% <span>↑</span>	17%	5%
Cloud-based ( <i>Stadia, Apple Arcade, etc.</i> )	10% <span>↑</span>	1%	—
Last-Gen Console ( <i>Xbox 360, PS3</i> )	6% <span>↑</span>	3%	59%*
VR/AR	4% <span>↑</span>	3%	6%

\*Data collected before 2020 did not include the option to choose between consoles





# The Future of **External Development**



## Top 5 projected areas of growth in demand in the next 12-18 months

Across all services lines, **3D art, Concept Art, and Cinematic VFX** continue to be the primary driver of growth year-over-year. The most striking development this year however, is the rise of Engineering as a top-5 service line, displacing Keyframe Animation and Audio.

Service Providers last year accurately predicted a **rising demand for outsource Engineering** among Developers/Publishers — a trend they expect to continue.

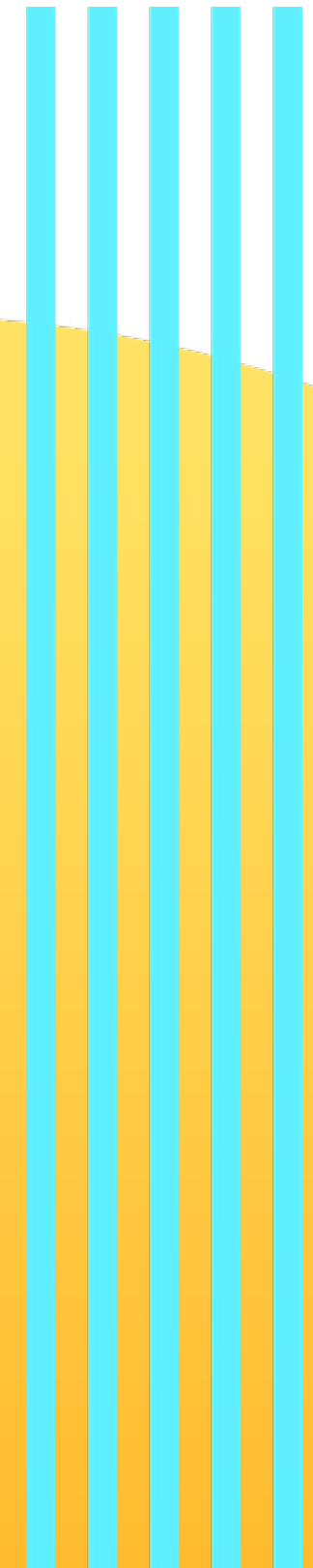


### VR: A Platform In Doubt

**22% of Service Providers** listed VR as a top-3 driver of increased demand over the next 5 years — compared to **0% of Developers/Publishers**

SERVICE PROVIDERS	2021 RANKING		2020 RANKING	2019 RANKING
3D Art	1		1	1
Concept Art	2		2	3
Cinematic VFX	3		3	5
Engineering	4	↑	—	—
UI/UX	5	↑	—	—

DEVELOPERS / PUBLISHERS	2021 RANKING		2020 RANKING	2019 RANKING
Engineering	1	↑	4	—
Art (3D & 2D)	2	↓	1	1
Cinematic VFX	3		3	5
Game Development (Console)	4	↑	—	—
Game Development (Mobile)	5	↑	—	—



## Main drivers in demand for services over the next 3 years



Demand for External Development continues to increase year-over year with no indication of slowing, despite disruption due to COVID-19. There is consensus that the primary drivers of growth will be the demand for **new content** while also keeping **production costs down**.

Service Providers and Developers/Publishers continue to be out of step on the **relative importance of new consoles and platforms**. This may indicate that Developers/Publishers are more focussed on the scale and longevity of their games (regardless of platform) than Service Providers realize. Further, it appears that when Developers/Publishers face challenges related to new consoles and platforms, they tend **not to seek out external partners for solutions**.

### Continued growth, but at a slower rate

83% of Developers/Publishers are seeing a GROWTH IN DEMAND for external partners, down from 97% from last year

SERVICE PROVIDERS	2021 RANKING		2020 RANKING	2019 RANKING
Demand for more content	1	↑	2	1
New consoles / new platforms	2	↓	1	4
Need for developers to decrease development costs	3 (tie)	↑	4	3
Competition for niche skills in client markets	3 (tie)		3	—

DEVELOPERS / PUBLISHERS	2021 RANKING		2020 RANKING	2019 RANKING
Demand for more content	1		1	1
Meet demand for headcount	2	↑	—	—
Richer/deeper games	3 (tie)	↑	2	2
Need to decrease development costs	3 (tie)		3	—



## Top 5 concerns about the future of external development

Both Service Providers and Developers/Publishers are optimistic about the future, though they share anxiety about the **availability of top talent**. There is also the shared perception that **market consolidation** through mergers and acquisitions is cause for concern. However, these fears do not appear to be supported by the data collected in this year's survey. Any decrease in the number of large Developer/Publishers and Service Providers through consolidation seems to be balanced by an increase in the **number of new small- to medium-sized companies** — which bring with them new partnership opportunities.

The past year has tested external development with unprecedented challenges. But it is now clear that we didn't just survive such challenges — as an industry, we continue to thrive.



### SERVICE PROVIDERS

- 1 Scarcity of talent
- 2 Market consolidation/loss of clients
- 3 Competition with pricing, especially in developing markets
- 4 Service Providers being undervalued
- 5 Potential drop in demand

*“As the demand for external development increases, so does the amount of badly run service providers, who are out to ‘sell a lot’ not ‘do the highest quality work they can’.”*

*“I am worried about the giant external development studios [which] are buying up small studios... they have a special relationship with huge developers, which prevents me from beginning a partnership with them.”*

### DEVELOPERS / PUBLISHERS

- 1 Scarcity of talent
- 2 Market consolidation/loss of options
- 3 AI, machine learning, and automation
- 4 Network security
- 5 Diversity, equity, and inclusivity

*“The demand for art outsourcing has been increasing exponentially and has been very difficult to find, especially in 2020.”*

*“Consolidation that is based on increasing the collective revenue [instead of] a strategy that makes the collective more efficient.”*

*“Game dev is already hard enough, and having to orchestrate the work of a huge network of disparate teams creates more layers of complexity.”*

## PAST CONTRIBUTORS

### 2021

**Dave Sanderson**  
*External Development  
Manager, Phoenix Labs*

**Chris Wren**  
*Head of XDI Events, EA  
Chair, XDS Advisory Committee*

### 2020

**Laurent Lugbull**  
*Category Manager -  
Outsourcing & External  
Development, Ubisoft*

**Chris Wren**  
*Sr Manager, EA and Chair,  
XDS Advisory Committee*

### 2019

**Carla Rylance**  
*External Development  
Manager, The Coalition  
at Microsoft Studios,  
XDS Advisory Committee  
Member*

**Lauren Freeman**  
*Director, Worldwide  
External Development, EA*

**Chris Wren**  
*Sr Manager, EA and Chair,  
XDS Advisory Committee*

### 2018

**Chris Wren**  
*Sr Manager, EA and Chair,  
XDS Advisory Committee*

**Madelynne Kalyk**  
*XDS Marketing and  
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### 2017

**Jason Harris**  
*Senior Director, Worldwide  
External Development, EA*

**Andrea Wood**  
*Telfer School of  
Management Graduate*

### 2016

**Dilber Mann**  
*Senior Project Manager,  
Capcom Vancouver*

**1518 STUDIOS**

Thank you to **1518 Studios**  
for providing mascot artwork.



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