

4:20-cv-05640-YGR

Epic Games, Inc. v. Apple Inc.

Expert Testimony of James E. Malackowski

May 20, 2021

James E. Malackowski



- Co-Founder and CEO of Ocean Tomo LLC, an IP-focused valuation, strategy and investment banking firm



- Past President, Licensing Executives Society International, world's largest technology transfer professional association
- Current / former Board Director for leading technology firms and research organizations, including Ford Global Technologies, Inc.



- Frequent instructor for graduate studies on intellectual property management and markets
- Certified Public Accountant (CPA) and Certified Licensing Professional (CLP)



Overview of Opinions

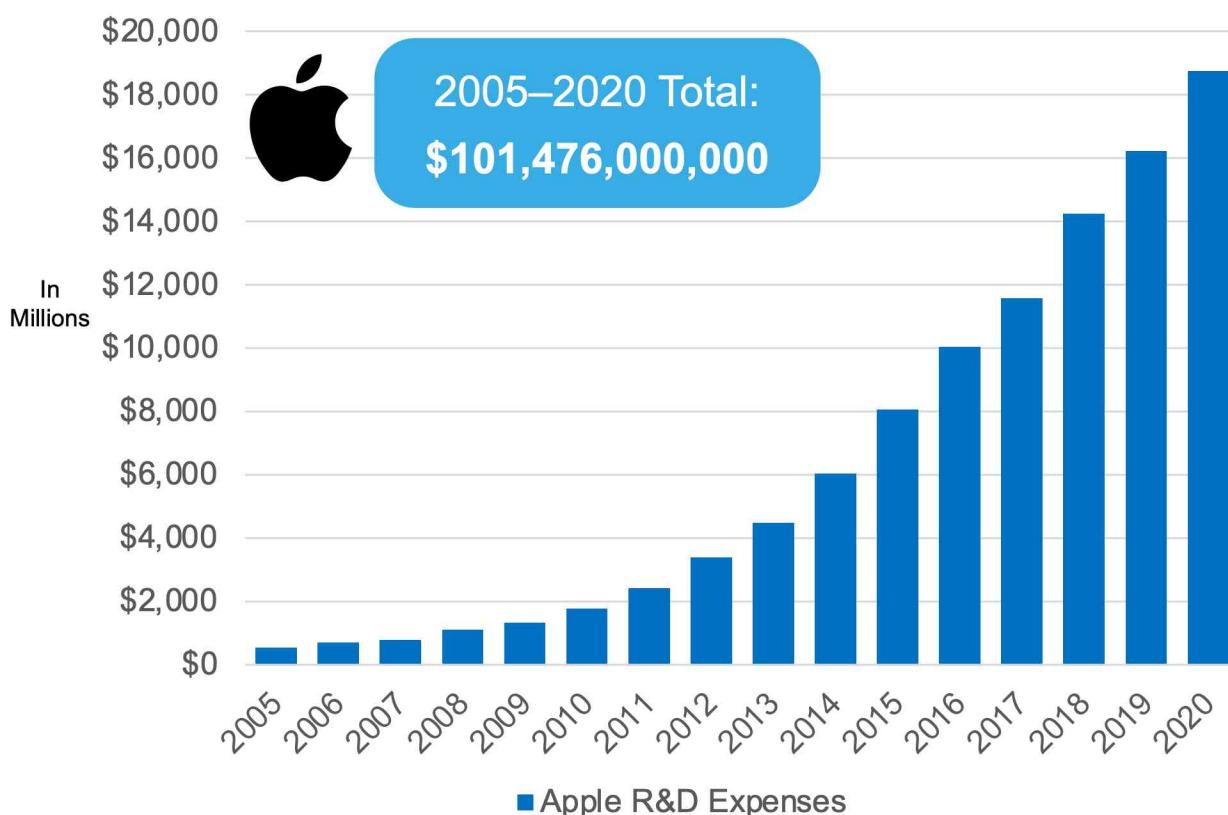
- 1 Apple's substantial and sustained investment in research and development results in valuable IP.
- 2 App developers and consumers of apps benefit from Apple's ongoing innovation and its willingness to license its exclusive IP.
- 3 Epic made substantial use of Apple's licensed IP.
- 4 Epic's requested remedies would result in a compulsory license without compensation to Apple for its existing IP and ongoing innovation.

Overview of Opinions

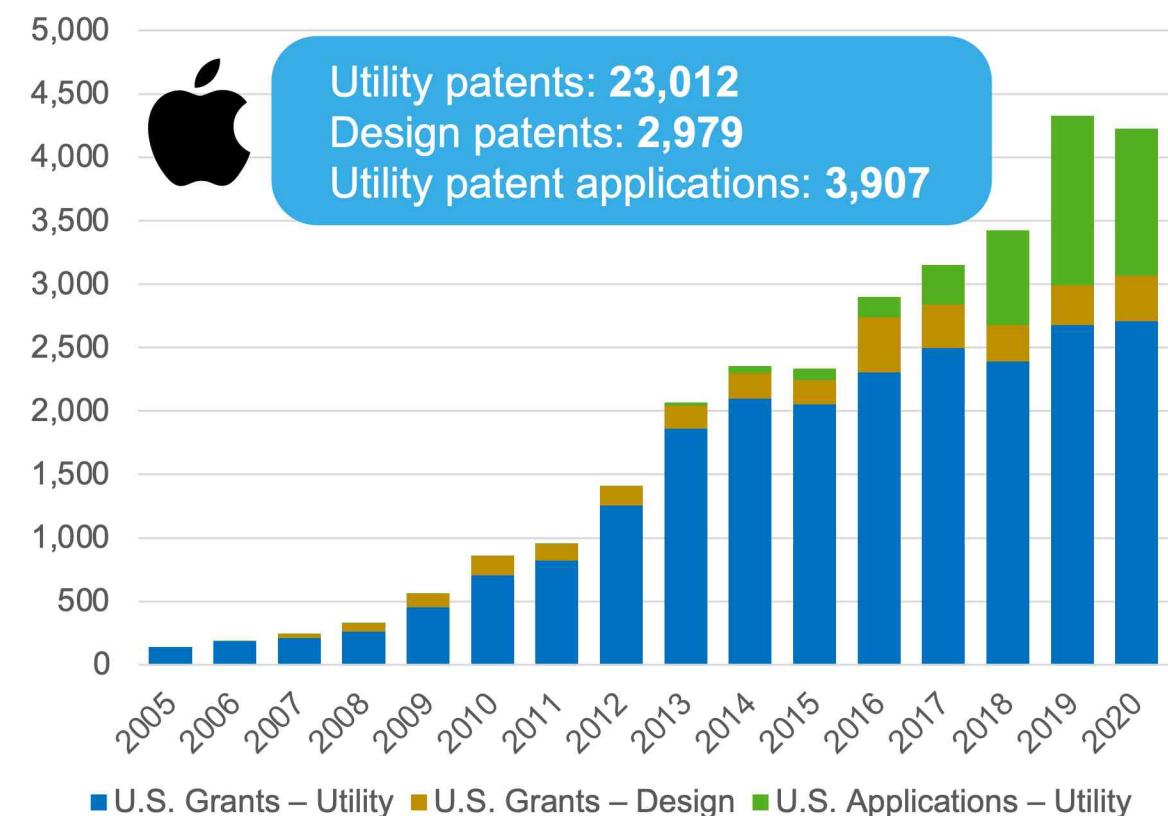
- 1 Apple's substantial and sustained investment in research and development results in valuable IP.
- 2 App developers and consumers of apps benefit from Apple's ongoing innovation and its willingness to license its exclusive IP.
- 3 Epic made substantial use of Apple's licensed IP.
- 4 Epic's requested remedies would result in a compulsory license without compensation to Apple for its existing IP and ongoing innovation.

Apple's R&D Investment and Resulting Patents

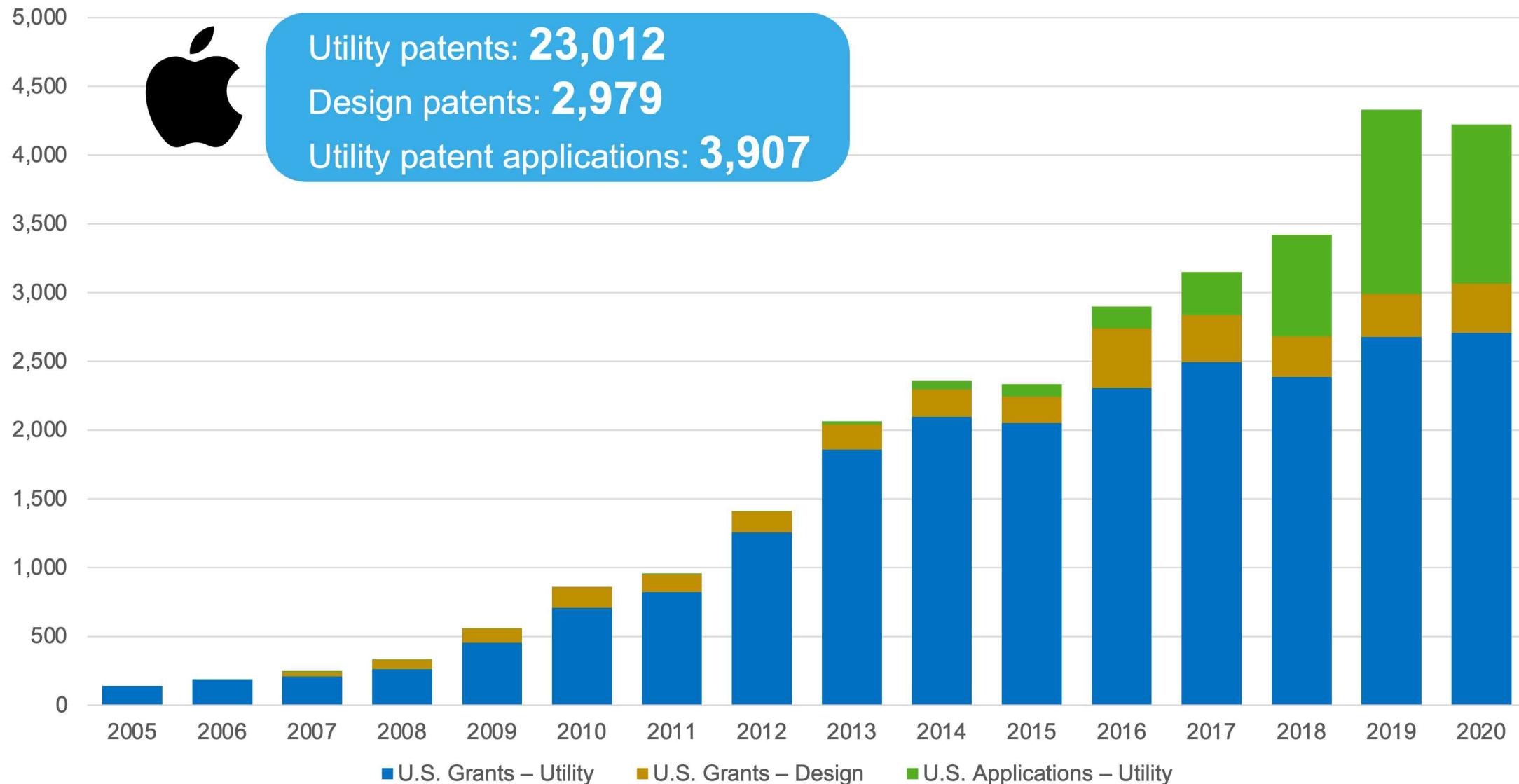
Apple's Sustained Commitment to Research and Development



Apple's Patent Applications and Grants Protecting Its Innovations



Apple's Investment in R&D Has Resulted in a Substantial and Growing Patent Portfolio



Patent Study of Apple Developer Frameworks and Tools



Search
Database
Using Terms

Test Results
and Revise
Terms

Search
Database
Using
Revised
Terms

Test Results
and Revise
Terms

Manually
Review
Results

Select Technologies Covered by Apple's IP

**1,237**

U.S. patents

559

U.S. patent applications

**165**

U.S. patents

91

U.S. patent applications

**2,515**

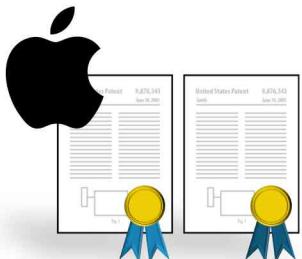
U.S. patents

696

U.S. patent applications

**~4,900**
US copyrights**TM****~1,500**
US trademarks

Apple Has Patents on a Variety of Software

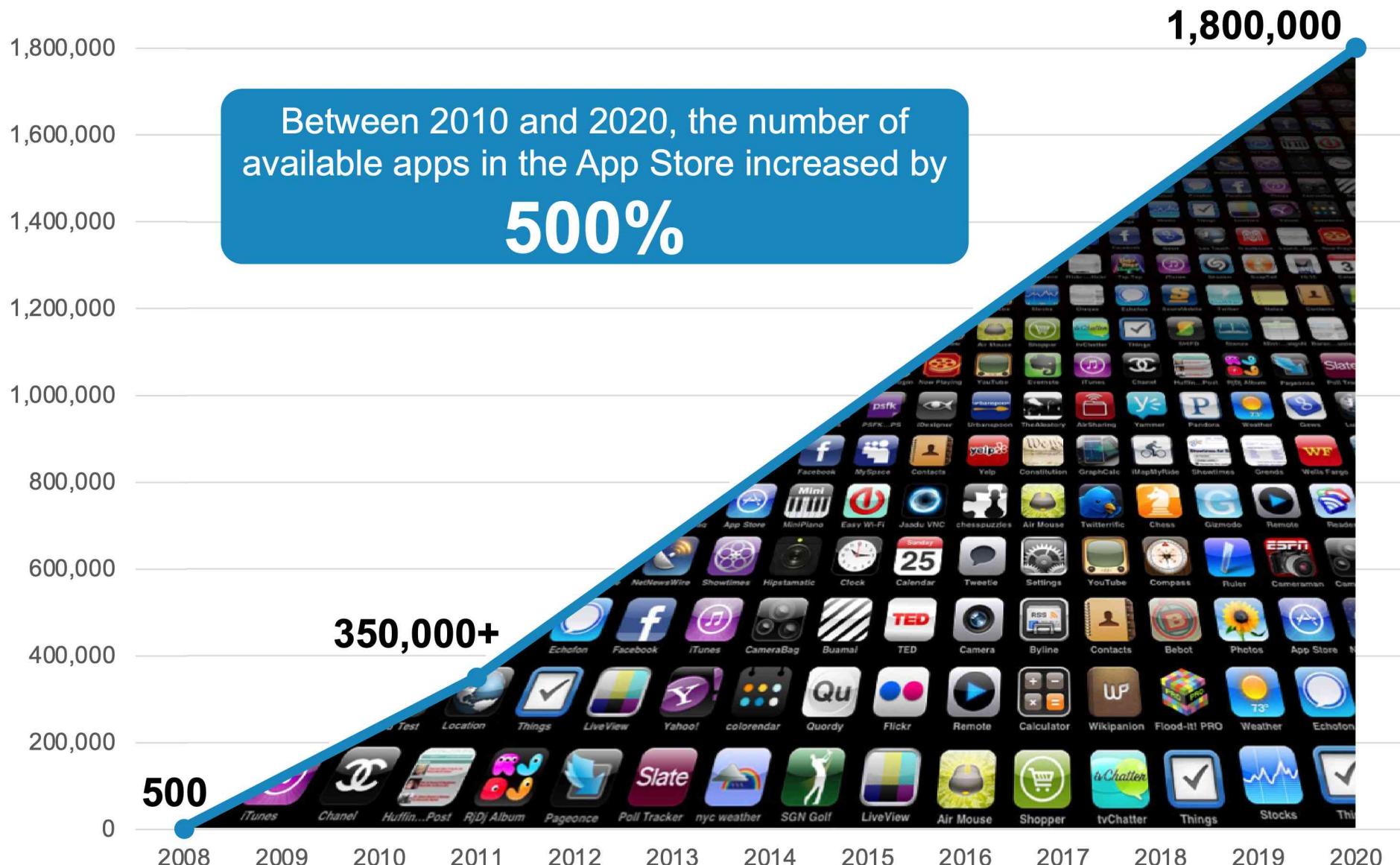


Search Term	U.S. Patents	U.S. Applications	Total	Search Term	U.S. Patents	U.S. Applications	Total
AirPlay [2]	51	11	62	In-App Purchase [31]	5	12	17
AirPrint [3]	4	-	4	Messages Extension [32]	12	5	17
API [4]	2,263	574	2,837	Metal [33]	11	4	15
App Store [5]	165	91	256	MultipeerConnectivity [34]	-	1	1
Apple Pay [6]	22	23	45	Network Extension [35]	7	11	18
Architecture [7]	79	67	146	PassKit [36]	-	1	1
ARKit [8]	1	5	6	Push Notification [37]	71	27	98
AudioToolbox [9]	2	-	2	Quartz [38]	22	1	23
Authentication [10]	47	37	84	QuartzCore [39]	5	-	5
Authorize/Authorization [11]	35	41	76	SDK [40]	67	31	98
AVFoundation [12]	2	1	3	StoreKit [41]	1	1	2
Business Chat [13]	-	2	2	Subscription Service [42]	10	15	25
CarPlay [14]	22	11	33	Touch ID [43]	25	25	50
CloudKit [15]	1	1	2	UIKit [44]	22	6	28
CoreAudio [16][17]	41	4	45	UserNotifications [45]	12	3	15
CoreGraphics [17][18]	79	7	86	WebKit [46]	52	10	62
CoreVideo [17][19]	20	1	21	Widgets [47]	61	52	113
CoreMedia [20]	26	4	30	Xcode [48]	31	15	46
CoreMotion [21]	4	1	5				
CoreML [22]	-	1	1				
Face ID [23]	18	9	27				
Foundation [24]	26	5	31				
Framebuffer and Security [25]	8	7	15				
GameController [26]	6	2	8				
GameKit [27]	1	-	1				
HealthKit [28]	3	3	6				
HomeKit [29]	11	7	18				
iAD [30]	4	1	5				

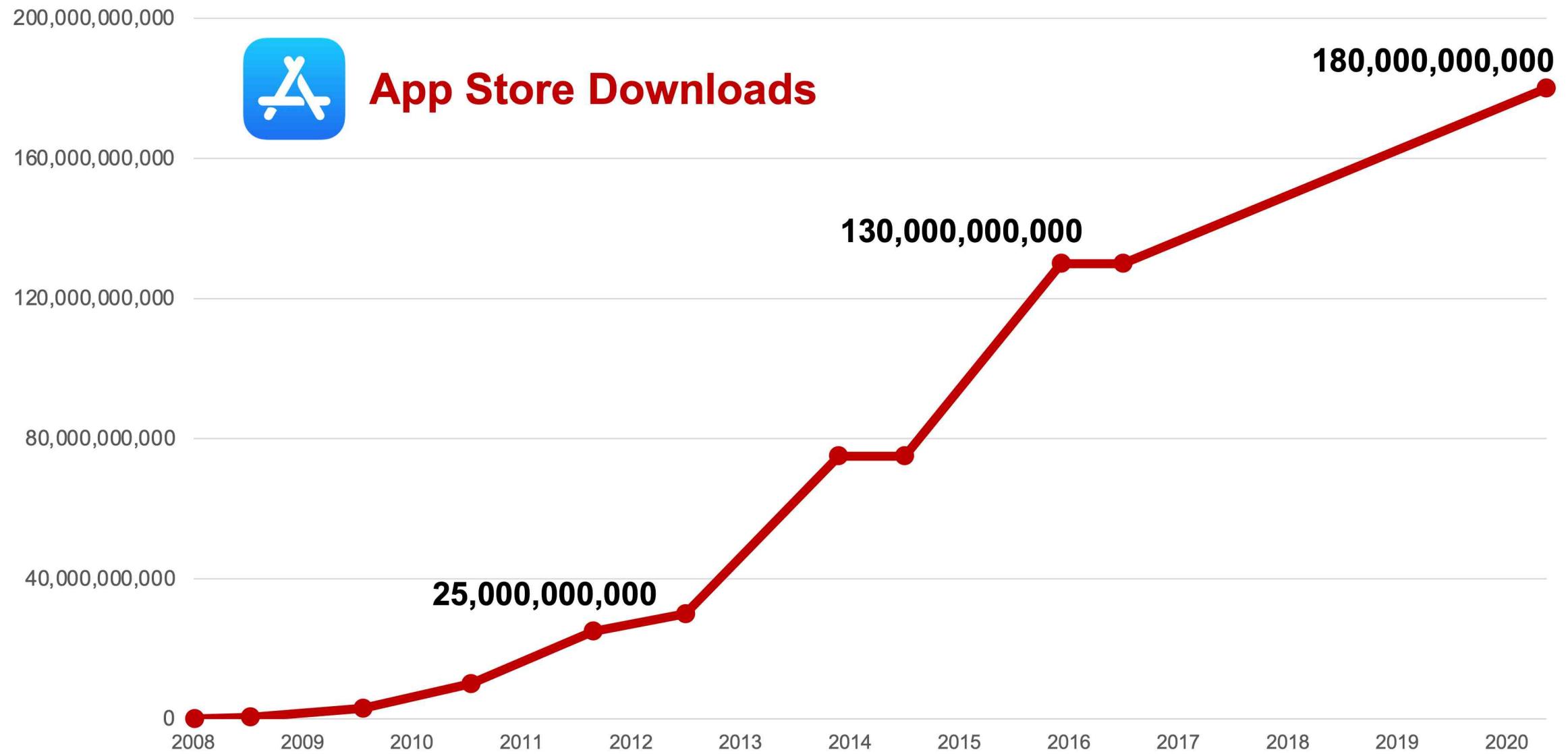
Overview of Opinions

- 1 Apple's substantial and sustained investment in research and development results in valuable IP.
- 2 App developers and consumers of apps benefit from Apple's ongoing innovation and its willingness to license its exclusive IP.
- 3 Epic made substantial use of Apple's licensed IP.
- 4 Epic's requested remedies would result in a compulsory license without compensation to Apple for its existing IP and ongoing innovation.

Exponential Growth in Available Apps

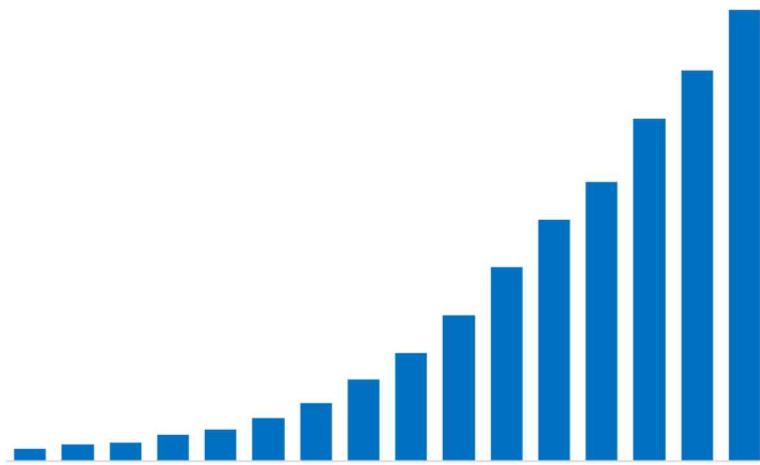


Dramatic Growth in Consumer Adoption

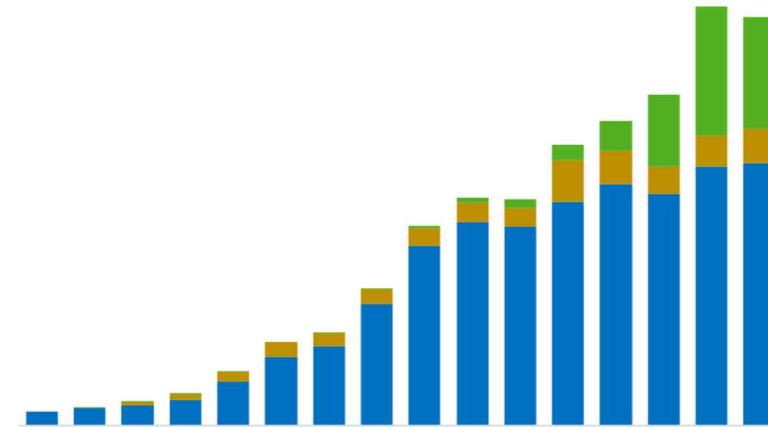


Apple's Investment in R&D Dramatically Increases Innovation and Output

Apple's Research and Development



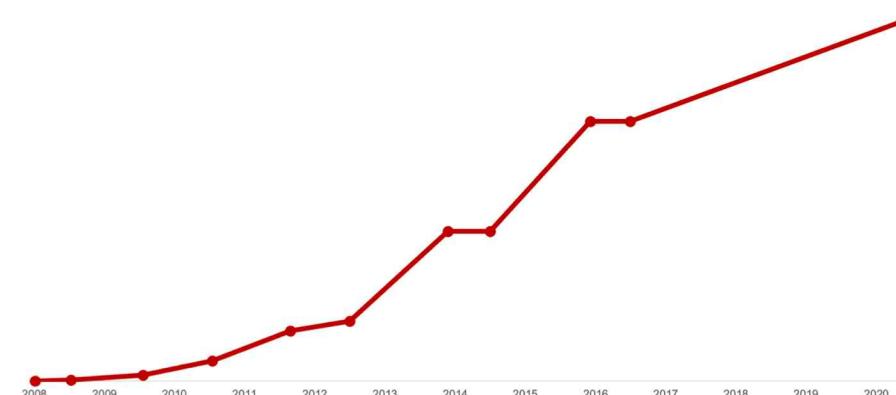
Apple's Patent Applications and Grants



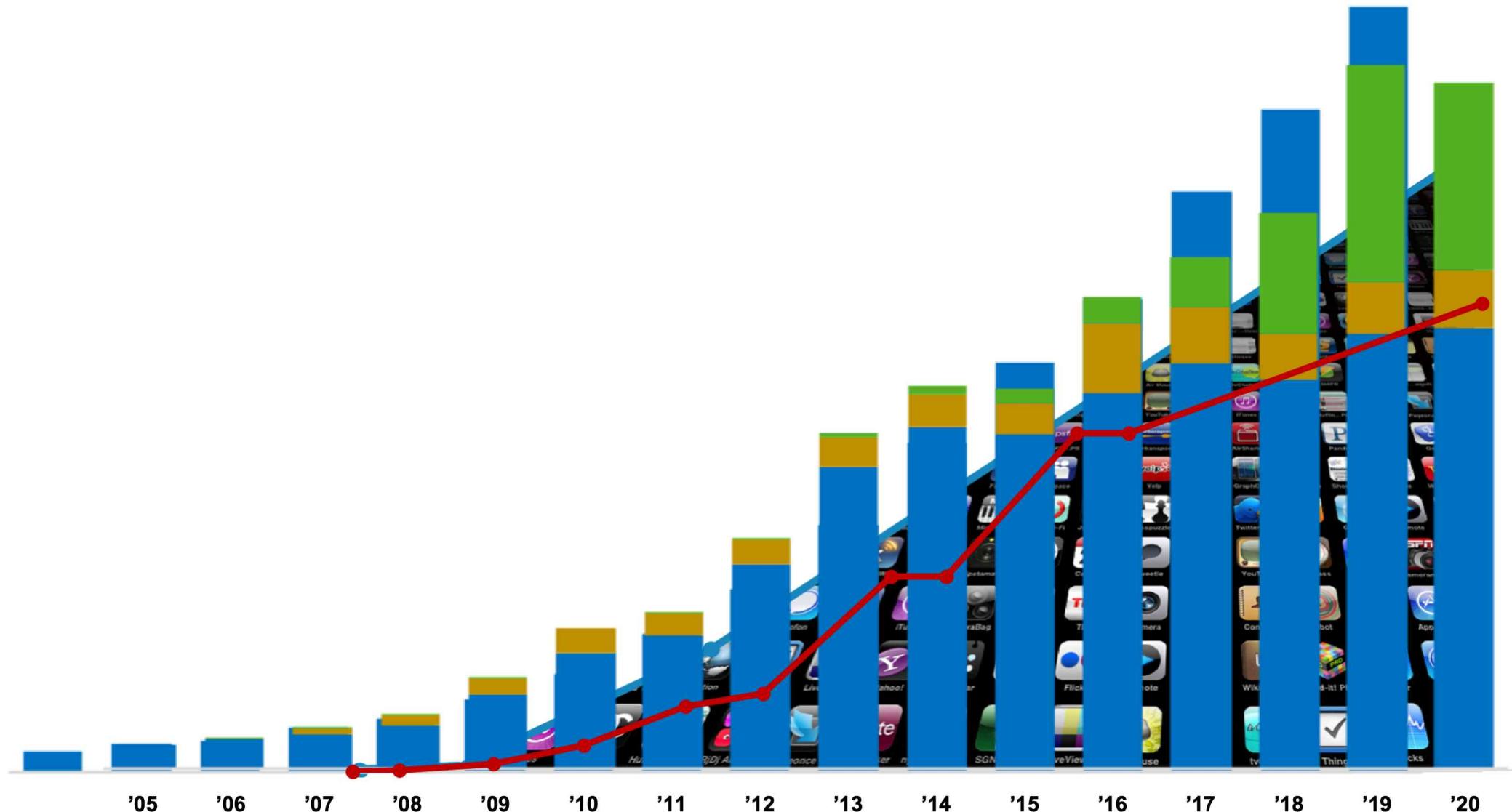
Available App Store Apps



App Store Downloads



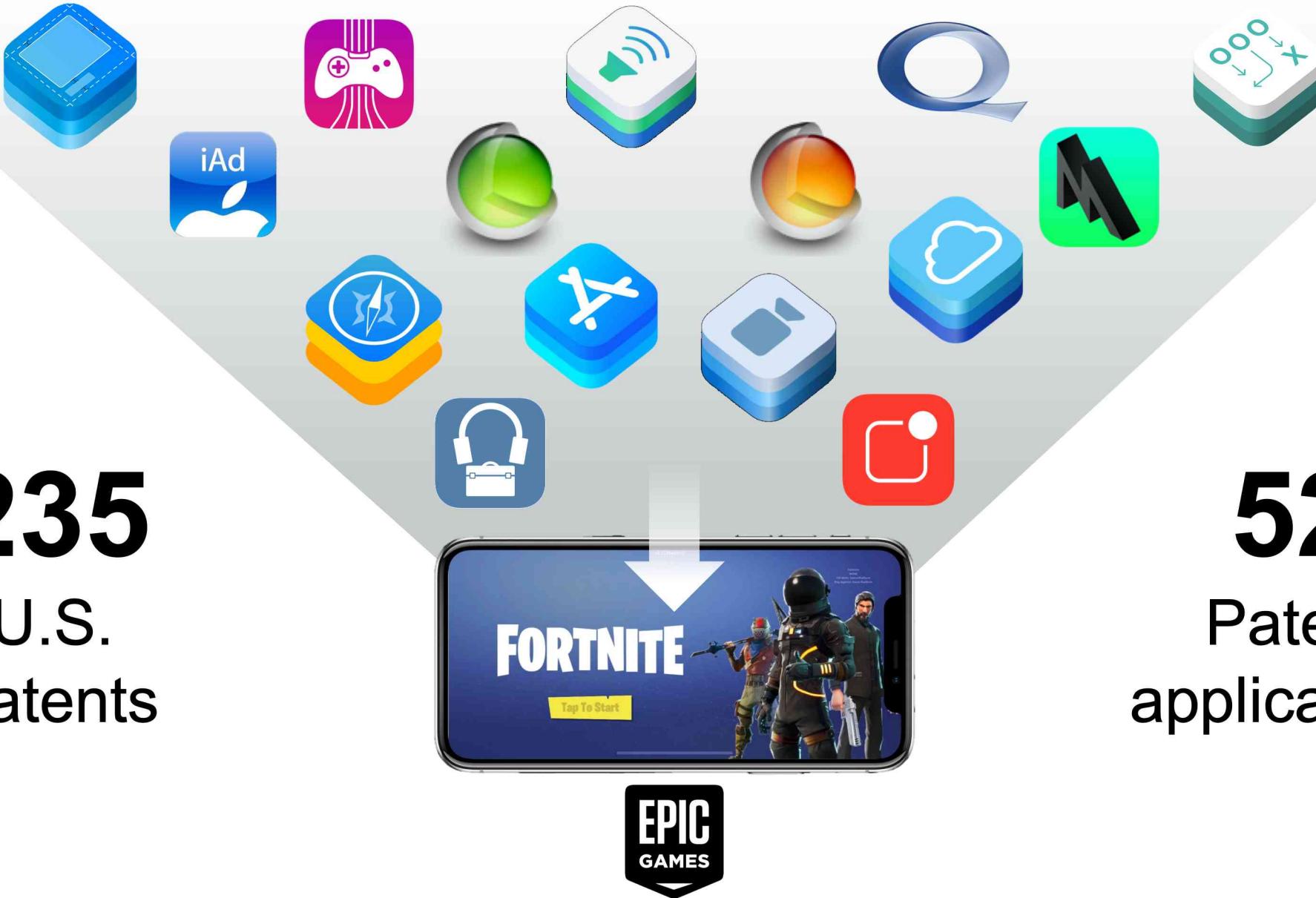
Apple's Investment in R&D Dramatically Increases Innovation and Output



Overview of Opinions

- 1 Apple's substantial and sustained investment in research and development results in valuable IP.
- 2 App developers and consumers of apps benefit from Apple's ongoing innovation and its willingness to license its exclusive IP.
- 3 **Epic made substantial use of Apple's licensed IP.**
- 4 Epic's requested remedies would result in a compulsory license without compensation to Apple for its existing IP and ongoing innovation.

Epic Has Made Substantial Use of IP Licensed From Apple



Overview of Opinions

- 1 Apple's substantial and sustained investment in research and development results in valuable IP.
- 2 App developers and consumers of apps benefit from Apple's ongoing innovation and its willingness to license its exclusive IP.
- 3 Epic made substantial use of Apple's licensed IP.
- 4 Epic's requested remedies would result in a compulsory license without compensation to Apple for its existing IP and ongoing innovation.