과학기술일자리진흥원
CES 기술 트렌드 및 시사점

2022. 01. 20.

과학기술일자리진흥원 기술사업화팀



과학기술일자리진흥원 기술사업화팀 오해영 선임연구원

CES 2020 : the Trends from the Big Show



□ Introduction

1. WHEN?

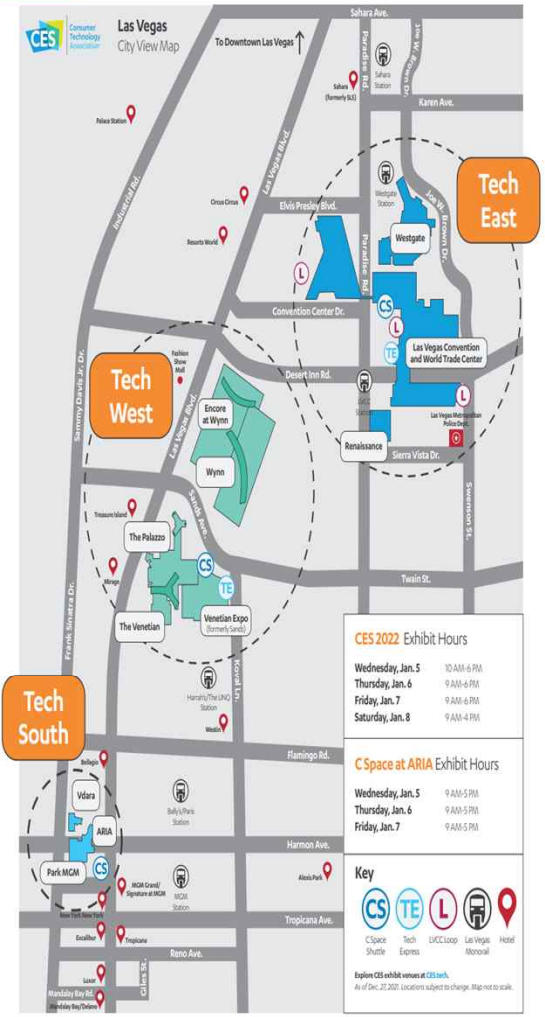
출처: CES web - https://www.ces.tech/



□ Introduction

2. Venue

출처: CES web - https://www.ces.tech/









□ Introduction

3. CES?



□ Prelude

1. Technologies & Topics

Tech Topics

Consumer technology touches almost all aspects of business, work and life. At CES, exhibiting companies showcase revolutionary products that cut across verticals, and industry leaders offer insights into trends that are shaping the future.

CES represents all facets of the consumer technology industry, from baby tech to sports tech, and from home entertainment to smart cities.

We've grouped insights, innovations and leaders by important product categories and emerging areas so that you can explore what to see at the show and how these technologies are advancing.

5G and Internet of Things (IoT)	5G Resilience Smart Cities Sustainability
Advertising, Entertainment & Content	Entertainment & Content Marketing & Advertising
Automotive	Self-Driving Cars Vehicle Technology
Blockchain	Cryptocurrency
Health & Wellness	Accessiblity Digital Health Fitness & Wearables
Home & Family	Home Entertainment Family & Lifestyle Smart Home Travel & Tourism
Immersive Entertainment	Augmented & Virtual Reality Gaming
Product Design & Manufacturing	Design, Sourcing & Packaging
Robotics & Machine Intelligence	Artificial Intelligence Drones Robotics
Sports	Esports Sports Technology
Startups	Investors Startups

출처: CES web - https://www.ces.tech/

□ Prelude

2. Entrepreneurs there

CES 2022 (온/오프라인) 주요 참가 기업 (출처: CTA)

Featured Exhibitors

See cutting-edge technologies and the latest product launches from global tech powerhouses and promising entrepreneurs at CES® 2022. These are the companies paving the way for the future.

Abbott, ALARM.COM, BlackBerry, BOSCH, BMW, Canon, Hisense, HYUNDAI, intel, Jabra GN, JOHN DEERE, LG, NVIDIA, NXP, ORACLE Advertising and CX, orka, Panasonic, Qualcomm, Roku, SAMSUNG, Schneider Electric, SIERRA SPACE, SK telecom, sleepscore labs, sona, SONY, STELLANTIS, TOSHIBA, tusimple, verizon, VIVE htc, VOXX International Corporation, VINFAST, XPERI

CES 2022 (제품 카테고리별) 주요 참가 기업 (출처: CTA)

PRODUCT CATEGORIES

CES 2022 will feature companies from all corners of the tech industry. View just a small selection of those exhibitors by product category, and check back for new updates leading up to the show.

3D Printing
- Formlabs
- Markforged
- Shenzhen Yidimu Intelligent Technology Co., Ltd

Accessories
- ESI Cases & Accessories
- Mizco
- Targus

AI/Robotics
- DeepBrain AI
- Doosan
- Hancom Group

Audio/Video
- Dolby Laboratories
- Hisense
- Konka
- SK Telecom
- TCL

C Space
- DISH Network
- Roku
- Samsung Ads
- Samba TV
- Snap

Drones
- Autel Robotics
- Skydio
- XDynamics

Eureka Park
- Business France
- GREAT Britain and Northern Ireland Pavilion C/O Tradefair
- Holland Tech Square
- Italian Trade Agency
- Korea Trade Investment Promotion Agency

Health & Wellness
- Abbott
- AT&T Business
- Dassault Systemes Americas
- Revival Health
- Sleep Number

IoT Infrastructure
- GetWireless
- NimbeLink
- QuEST Global
- Taoglas
- Quectel Wireless Solutions
- u-blox

Lifestyle
- AfterShokz
- Chipolo
- Digitsole
- Spacetalk

NFTs
- Blockparty
- FTX

Smart Cities
- Corning
- GreenCell
- GROV Tech
- Quanergy
- R-Zero Systems

Smart Home
- AARP
- Hampton Products
- Kohler
- MicroEJ
- Moen
- Ooma
- Schneider Electric
- TP-Link
- Z-Wave Alliance

Space Tech
- Sierra Space
- Zero G

Sports Tech
- CLMBR
- Echelon Fitness Multimedia
- Hydrow
- Liteboxer

Transportation/Vehicle Technology
- Bird
- Bridgestone
- Damon Motorcycles
- GARMIN
- HERE North America
- Hunter Engineering
- Hyundai Mobis
- Indy Autonomous Challenge
- Mobileye
- NXP
- PACCAR
- Stellantis
- Valeo
- Veoneer
- ZF Friedrichshafen

XR/Gaming
- Ace Computers
- HTC
- Hypervsn
- MAD Gaze
- Razer

출처: CES web - https://www.ces.tech/

□ Prelude

CES 2020 참석상위 20개 국가 (출처: CTA, theMilk)

	나라명	확인된 숫자		나라명	확인된 숫자
1	미국	110,581	11	이스라엘	1,150
2	중국	11,067	12	이탈리아	941
3	한국	10,471	13	네덜란드	887
4	일본	8,245	14	홍콩	823
5	캐나다	4,360	15	스위스	724
6	프랑스	4,153	16	스웨덴	619
7	독일	2,471	17	호주	558
8	영국	2,359	18	인도	482
9	대만	2,354	19	싱가포르	444
10	멕시코	1,660	20	브라질	423

CES 2022 상위 관심 제품 카테고리 (출처: CTA, theMilk)

마켓 카테고리	참여 기업수	마켓 카테고리	참여 기업수
인공 지능 (Artificial Intelligence)	32,271	클라우드 서비스 (Cloud Services)	17,881
스마트홈 (Smart Home)	31,009	디지털 헬스 (Digital Health)	16,466
무선 장치 (Wireless Devices)	27,556	오디오/하이엔드/고성능 (Audio/High-End/High Performance)	16,416
소프트웨어 및 앱 (Software and Apps)	25,787	게임 (Gaming)	15,606
차량 기술 (Vehicle Technology)	24,916	동영상 (Video)	15,249
로봇 공학 (Robotics)	21,296	무선 서비스 (Wireless Services)	14,851
컴퓨터 하드웨어 (Computer Hardware)	21,233	드론 (Drones)	14,674
통신 (Telecommunications)	19,874	사이버 보안 및 개인 정보 보호 (Cyber Security and Privacy_	14,293
스마트 시티 (Smart Cities)	18,560	웨어러블 (Wearables)	24,590
센서 및 생체 인식 (Sensors and Biometrics)	18,557	가상 현실 및 증강 현실 (Virtual Reality & Augmented Reality_	20,551

3. Numerical Views

CES 2022 참석자 ISSUE 비교

1. CES 2020 = Off-line only
   CES 2021 = "All Digital"
   CES 2022 = On-/Off-line Hybrid

2. CES 2020 참가기업 수 = 4,500 개
   CES 2021 참가기업 수 = 1,961 개
   CES 2022 참가기업 수 = 2,200 개

   - **코로나로 빅테크인 구글, 메타(전 페이스북), 아마존, 트위터 등이 온라인 참가로 전환**

3. **참가 한국기업은 416개사로 역대 최대 참가**
   (CES 2020에도 390개사로 당시 역대 최대 참가)

   - **특히, 이번 참가 한국기업들 중 Start-ups가 228개사로, 참가 한국기업 전체의 54.8% 차지**

4. Fortune 500 기업 중 195개 기업이 참가
   - 미디어 참가자 2,400여 명
   - (CES 2020 대비 30% 증가) 자동차 관련 기업 200여 개
   - (CES 2020 대비 2배 증가) 100대 Top소매기업 중 66개 참가

□ Contents

1. Talks...

Keynotes

Now 2022. 1.10 10:09:29 PM PST

2022.01.04 6:30-7:30PM PST

한종희(Jong-Hee Han)
삼성전자(Samsung Electronics) 사장, President
베네치안 레벨 5, 쁘라조 볼룸
CES 2022 프리 쇼 기조 연설을 통해 기술과 인류가 지구를 위해 존재해야 한다 는 가치를 담은 '공존의 시대'를 주제로 지속가능한 미래를 향한 비전을 제시합니다.

2022.01.05 8:30-9:00AM PST

게리 샤피로(Gary Shapiro)
미국소비자기술협회(CTA) 회장 겸 CEO, President & CEO
캐런 처프카 (Karen Chupka)
CTA CES 총괄부사장 (EVP)
베네치안 레벨 5, 쁘라조 볼룸
'CES2022'에서 선보일 미래 기술 동향, 혁신적인 정책 환경, 그리고 CES2022의 경험을 최대한 활용하는 방안 등을 소개합니다.

2022.01.05 9:00-10:00AM PST

메리 바라(Mary Barra)
제너럴 모터스(General Motors) 회장 겸 CEO, Chair and CEO
베네치안 레벨 5, 쁘라조 볼룸
CES 2022 키오프 기조 연설을 통해 모든 자동을 전기차로 전환하는 제너럴 모터스(GM)의 모빌리티 비전이 세상과 인류에 어떤 기여를 창출하는지를 소개합니다.

2022.01.05 4:00-5:00PM PST

LVCC 웨스트 홀 W228-233
'세상을 위한 대담한 해법'을 주제로 한 패널 대화가 열립니다. 다양한 분야에서 아이디어를 찾아 나서고 있는 투자자들이 환경 개선, 경제적인 기회 창출, 의료 혁신 등 여러 분야의 기회에 대한 인사이트를 제시합니다.

2022.01.06 9:00-10:00AM PST

로버트 포드(Robert B. Ford)
애보트(Abbott) 회장 겸 CEO, President & CEO
베네치안 레벨 5, 쁘라조 볼룸
CES 최초의 의료 부문 기조 연설자로 나선 로버트 포드 애보트 회장은 연설에서 의료 분야의 기술 혁명이 환자의 삶의 질을 어떻게 향상시키는 지를 공유합니다.

2022.01.06 11:00-11:40AM PST

마이클 카산(Michael E. Kassan)
미디어링크(MediaLink) 회장 겸 CEO, Chairman and CEO
캐롤린 에버슨(Carolyn Everson)
인스타카트(Instacart) 사장 President
아리아 레벨 2 마리포사 5
마이클 카산 미디어링크 회장 겸 CEO, 캐롤린 에버슨 인스타카트 사장 등 여러 패널로부터 팬데믹 환경 속에서 기술 플랫폼을 활용한 콘텐츠가 어떤 방식으로 성가로로 이어지면서 소비자의 경험을 바꾸었는지를 엿볼 수 있는 기회입니다.



Steve Koenig

Vice President, Market Research
Consumer Technology Association



Steve Koenig is VP, Research at the Consumer Technology Association (CTA)® the U.S. trade association representing more than 2,200 consumer technology companies and which owns and produces CES® — The Global Stage for Innovation.

He leads CTA's industry research including consumer and business studies, technology forecasts and business intelligence. Koenig speaks and writes frequently on technology trends and their impact on consumer behavior, business opportunities and global economies.

Prior to CTA, Steve held analyst positions at NPD Group, Comscore, and a senior editor post at CMP Media's former *Computer Retail Week*. Koenig holds a bachelor's degree in marketing from the University of North Texas.

출처: CES web - https://www.ces.tech/

☐ Contents

2. Focus on the issues that matter

Global Innovation : 4 Focus Areas



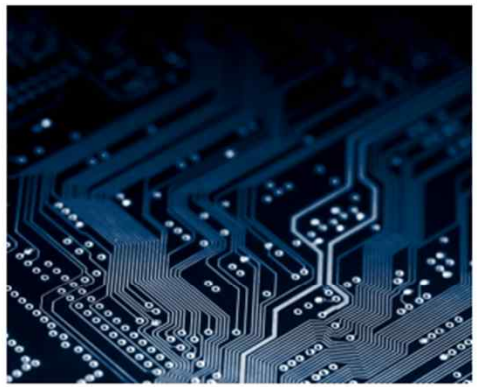
Technology Demand



Technology Investment



The New Tech Lifestyle



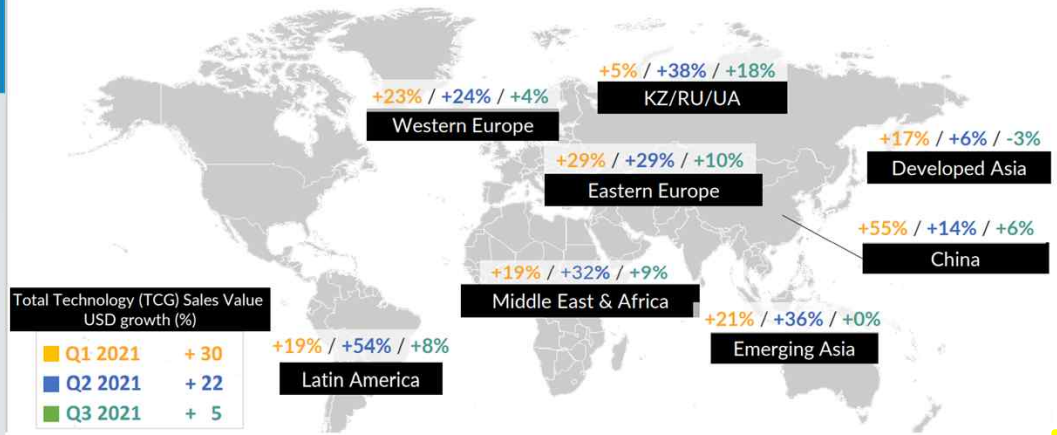
Technology Trends

출처: CES web - https://www.ces.tech/

□ Contents

2. Focus on the issues that matter

Technology Demand Remains Strong



Consumers Stick with New Services (%)





	Streaming Services		Wellness / Lifestyle		Food Delivery	
	U.S.	Europe	U.S.	Europe	U.S.	Europe
Added New Last 12 Mos.	47	52	54	40	53	47
Continue Using	57	84	64	61	60	73

Europe: 

Source: CTA Research, May & October 2021

Key Funding Sectors

YTD 3Q21 Global Snapshot





	Retail Tech	Fintech	Healthcare
Funding in Billions of USD:	82.5	94.7	97.1
# Deals:	2930	3549	5210

gopuff carta Olive

Source: CB Insights, Q3 21 State of Venture Report

CES 2022: Top Trends To Watch






Transportation	Space Tech	Sustainable Technology	Digital Health
Electric Vehicles	Commercial Applications	Alternative Power Sources	Wearables
Micro-mobility Solutions	Communications	Food Tech	Mental Wellness
21st Century Logistics	Tourism?	Smart Cities	Therapeutics
		Smart Home	Provider Solutions

출처: CES web - https://www.ces.tech/

□ Contents

3. Focus on Success Stories

Exhibitor Success Stories

CES is the launch pad for innovators and historic innovation. Hear the success stories of some of the entrepreneurs who have launched products, built brands and formed partnerships through participating at CES.



AERNOS™

AerNos, an innovator in application-specific nano gas sensors that can detect air pollution and other gases related to food spoilage, diseases and more, unveiled its revolutionizing technology at CES.

LEARN MORE →



BELL

Bell is using CES to help reinvent itself as a technology company redefining flight. After two years exhibiting at CES, the exposure to potential customers and new partners keeps them coming back.

LEARN MORE →



BENJILOCK

After launching its first product at CES, startup BenjiLock has earned funding from Shark Tank and secured distribution and manufacturing partnerships with some of the biggest names in the industry.

LEARN MORE →



BLACK BOX VR

Startup Black Box VR was looking for global media coverage of its virtual reality fitness technology and chose CES to launch its product. They left with months of development work, a concrete business roadmap and industry buzz.

LEARN MORE →



BRUNSWICK

Recreational boating company Brunswick Corporation is redefining the marine industry by integrating cutting-edge technology, design and innovation. At CES® 2020, Brunswick met with key partners, attracted potential clients and received unprecedented media attention.

LEARN MORE →



CARNIVAL CORP

Carnival Corporation's OceanMedallion™, designed to customize the cruise for each passenger, is a small wearable powered by a personalization platform. Carnival unveiled the medallion on the CES keynote stage.

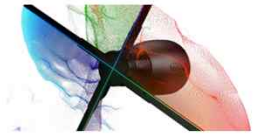
LEARN MORE →



HEAL

The market leader in doctor house calls, Heal, introduced the Heal Hub device (previously known as the Wellbe), in partnership with Qualcomm, at CES 2018. Being named a CES 2018 Innovation Award honoree helped Heal obtain Medicare reimbursement for patients who use its hub device.

LEARN MORE →



HYPERVSN

HYPERVSN launched its 3D holographic display system at Eureka Park, and the international business leads, media coverage and investors have kept them coming back to CES as their company has grown.

LEARN MORE →



IMPOSSIBLE FOODS

Impossible Foods, the creator of fully plant-based meat and dairy products, debuted the Impossible Burger 2.0 at CES, gaining unprecedented media coverage for their company.

LEARN MORE →



JOHN DEERE

Iconic equipment manufacturer and agriculture leader John Deere is also a tech company and, by exhibiting at CES 2019 and CES 2020, they are spreading the word about how ag tech can help feed the world.

LEARN MORE →



KLAXOON

French-based company Klaxoon is revolutionizing how meetings are conducted, and they returned to CES for the fifth year to unveil their newest product, a 2020 Innovation Award Winner.

LEARN MORE →



OMRON

Health care leader Omron Healthcare, Inc., aims to create healthier ways of living and empower consumers in personal health. At CES, Omron earned media coverage and established essential partnerships.

LEARN MORE →



PHILIPS

Philips, a global leader in health care technology and a member of the Consumer Technology Association (CTA)®, returns to CES year after year to secure media coverage and new partnerships.

LEARN MORE →



SAMBA TV

Television data and audience insights company Samba TV has used CES as a platform to forward its mission to transform the television viewing experience. From its first time exhibiting as a startup, Samba TV has returned to CES to unveil new solutions.

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SHADECRAFT

Showcasing the world's first robotic, autonomous shading system, ShadeCraft Robotics increased awareness about their product, connected with prospective investors and global distributors, and met potential partners at CES.

LEARN MORE →



ZERO MASS WATER

Zero Mass Water showcased its hydropanel technology, which creates water from sunlight and air, at CES 2020 and secured new partnerships and unprecedented media coverage.

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출처: CES web - https://www.ces.tech/

□ Summary

1. Major Trend in CES 2022

Major Trend in CES 2022……COVID-19

1. Home+Economy : POLYGON, Rain Stick, OtO
2. Healthcare : Abbott, Grapheal
3. ESG : Ocean Grazer, VideowindoW

   ☞ **선택이 아니 필수:** *If you can't take the heat, You better stay out of kitchen!*

4. Robotics : John Deere, Leica Geosystems(HxGN)
5. Cars and alliance : Magna+Uhnder, Hyundai, GM
6. AI (is gonna eat software) : Bird Buddy, **Petnow(한국, CES최고혁신상)**
7. 5G/Mobile : Samsung Electronics, 3i INC
8. AR, VR, MR……XR : LG, TCL, Dimenco



출처: CES web - https://www.ces.tech/

☐ Summary

2. Koreans Awarded

CES 2022 Innovation Awarded Koreans

☐ 중소기업 및 스타트업

번호	기업명	제품	수상분야
1	브이터치	공간컴퓨팅 활용 가상터치*	가상/증강 현실
2	와따	AI 클라우드 공간 인식 플랫폼*	
3	히포티앤씨	ADHD 디지털 진단/치료기기*	
4	공공	공기청정기	가전
5	홈세라	미니 의류 건조기	
6	클로버스튜디오	3차원 UAM/UTM 관제 시스템	드론&무인시스템
7	쓰리디준	안전진단 3D 모델 및 GIS 맵 솔루션	디지털 이미징 및 사진
8	도트힐	AI 로봇 모니터*	로보틱스
9	힐스엔지니어링	AI 스마트 기반 소독&가이드 로봇	
10	다비오	공간정보 추출 및 데이터화 AI	소프트웨어&모바일앱
11	디지소닉	3D 서라운드 음향 변환앱	
12	룰루랩	탈모 예방 솔루션	
13	버시스	딥러닝 음원분리기술	
14	비주얼 캠프	시선 추적 소프트웨어	
15	수퍼톤	AI 기반 가창, 음악 합성 기술	
16	에프앤디파트너스	피부의료영상 관리시스템	
17	웨인힐스벤처스	음성.영상 변환 AI서비스	
18	인피닉	인공지능 리테일 솔루션*	
19	클레온	실시간 영상 공유 플랫폼	
20	클레온	영상 더빙 솔루션	
21	펫나우	비문(Nose Print) 활용 반려동물 신원확인기술	
22	에바	전기차 완속 충전기	스마트시티
23	매크로액트	로봇 자율제어 솔루션	스마트홈
24	크리모	AI 알고리즘 블록 놀이	
25	휴테크	안마의자	
26	딥브레인 AI	AI휴먼 기술 기반의 SaaS 솔루션	스트리밍
27	리잇루트	폐플라스틱을 재활용한 고기능성 의류소재	웨어러블 기술
28	인핸드플러스	개인맞춤형 건강관리 솔루션	
29	소프트피브이	나무 형태의 태양광 ESS시스템	지속가능성/친환경
30	엔씽	모듈형 수직공장 큐브와 작물재배 솔루션	
31	위드어스	비접촉 자가발전기	
32	이너보틀	친환경 용기 솔루션	지속가능성/친환경
33	비트센싱	4D 이미지 레이더 솔루션	모빌리티
34	레티널	초경량 양안 플라스틱 AR 안경	컴퓨터 주변장치
35	티피링크	고성능 유무선 공유기	
36	디지소닉	몰입형 3D 헤드폰	헤드폰&개인오디오
37	비피엠	웨어러블 오디오기기	
38	닉스	수면종합케어솔루션	헬스/웰니스
39	룰루랩	탈모 예방 솔루션	
40	메텔	스마트 베개	
41	에이아이포펫	반려가족 건강관리 서비스	
42	에이치로보틱스	재활운동기기	
43	엠아이제이	이명케어 솔루션	
44	올리브헬스케어	부위별 근육측정기기	
45	와이브레인	스트레스 완화 전자약	
46	인트인	호흡진단, 치료시스템	
47	콤틱	3D 커스텀 안경 제작 서비스	

☐ 중견기업

번호	기업명	제품	수상분야
1	바디프렌드	안마의자	가전
2	만도	자율주행을 위한 통합 브레이크 시스템	차량지능, 운송
3	아모레퍼시픽	스킨케어 플랫폼	헬스&웰니스
4	아모레퍼시픽	마인드링크 배스봇	

☐ 대기업

번호	기업명	제품	수상분야
1	두산	카메라 로봇, 수직이착륙 드론, 수소연료전지 시스템 등	모바일, 가전, 컴퓨터 주변장치, 모바일 등 다수
2	삼성전자	모바일 , 영상디스플레이, 가전, 반도체 등	
3	LG전자	생활가전, 영상디스플레이 등	
4	SK이노베이션	니켈 비중 90% 배터리	
5	웅진씽크빅	AR 독서서비스	

자료 : CES 홈페이지, 연구자
주 : 1) 대기업 계열사의 경우 모기업을 기준으로 기재
2) 상세 제품 수 및 개별 소개는 생략

발췌: 한국무역협회 Trade Brief 2022.1.5. No.1

□ Summary



1. CES couldn't overcome COVID19,
   but that didn't matter.
2. Laptops and TVs are flashy again,
   and you'll like the new ones.
3. Phones and 5G provided
   a meaty unofficial CES.
4. Smart glasses could have
   an iPad moment in 2022.
5. The EV tsunami is about to come ashore.

3. Thumbs up or down?





A. In 2022, silicon competition
   is going mobile.
B. Experimental laptops design took
   center stage.
C. Display tech took some twists & bends.
D. Virtual reality was barely there.
E. Car Makers still all-in on futuristic concepts.
   : not pricey, but need more ESG friendly…

□ The Sherpa

https://www.ces.tech/

https://www.ces.tech/Events-Programs/CES-Unveiled/CES-Unveiled-Amsterdam/Speakers/Steve-Koenig.aspx

https://cdn.ces.tech/ces/media/pdfs/2022/ces-2022-unveiled-tech-trends_koenig_final.pdf

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https://cdn.ces.tech/ces/media/pdfs/ces-2022-svm_oct20.pdf

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https://namu.wiki/w/CES

https://www.cnet.com/tech/the-ces-2022-trends-well-all-be-talking-about-this-year/

https://www.pcmag.com/news/ces-2022-the-5-top-trends-from-the-big-show

□ Implications : in terms of COMPA

1. 창업 : Start-up / Set-up / Pop-up

2. 사업방식 : “Micro-multinationals” by smalls

3. We? us?

   1) CES Trend 유망기술 + Other Tech. insights

   ↓

   2) (민간TLO 등과 함께) 발굴 ⇒ SMK ⇒ 매칭 ⇒ 기술이전 성과

   ↓

   3) 성과 관리 및 확산 : “미래기술마당”

감사합니다!