The table below highlights leading industry players whose research efforts have been inspired by advancements in BEV perception. The data is as of March 2023.

Institution	Related Work
1 NVIDIA, USA	M^2BEV: Multi-Camera Joint 3D Detection and Segmentation with Unified Bird's-Eye View Representation, 22.04
2 Qualcomm, USA	X-Align: Cross-Modal Cross-View Alignment for Bird's-Eye-View Segmentation, 22.10, WACV
3 Bosch, Germany	SemanticBEVFusion: Rethink LiDAR-Camera Fusion in Unified Bird's-Eye View Representation For 3D Object Detection, 22.12
4 Valeo, France	LaRa: Latents and Rays for Multi-Camera Bird's-Eye-View Semantic Segmentation, 22.06, CORL
5 Motional, USA	3M3D: Multi-view, Multi-path, Multi-representation for 3D Object Detection, 23.02
	Surround-View Vision-based 3D Detection for Autonomous Driving: A Survey, 23.02
	Vision-RADAR fusion for Robotics BEV Detections: A Survey, 23.02
6 Volvo, Sweden	F2BEV: Bird's Eye View Generation from Surround-View Fisheye Camera Images for Automated Driving, 23.03
7 Huawei, China (華為)	Towards Domain Generalization for Multi-view 3D Object Detection in Bird-Eye-View, 23.03, CVPR
8 Horizon Robotics, China (地平線)	MapTR: Structured Modeling and Learning for Online Vectorized HD Map Construction, 22.08, ICLR
	Vision-based Uneven BEV Representation Learning with Polar Rasterization and Surface Estimation, 22.07, CORL
	Multi-Camera Calibration Free BEV Representation for 3D Object Detection, 22.10,
	Sparse4D: Multi-view 3D Object Detection with Sparse Spatial-Temporal Fusion, 22.11
9 NIO, China (蔚來)	TiG-BEV: Multi-view BEV 3D Object Detection via Target Inner-Geometry Learning, 22.12
10 DJI, China (大疆)	UniFormer: Unified Multi-view Fusion Transformer for Spatial-Temporal Representation in Bird's-Eye-View, 22.07
11 DiDi, China (滴滴)	FusionMotion: Multi-Sensor Asynchronous Fusion for Continuous Occupancy Prediction via Neural-ODE, 23.02
	Consistency of Implicit and Explicit Features Matters for Monocular 3D Object Detection, 22.07
	Contour Context: Abstract Structural Distribution for 3D LiDAR Loop Detection and Metric Pose Estimation, 23.02
12 HAOMO.AI，China (毫末智行)	BEV-Lanedet: Fast Lane Detection on BEV Ground, 22.10
13 PhiGent, China (鑒智機器人)	BEVDet: High-Performance Multi-Camera 3D Object Detection in Bird-Eye-View, 22.06

	BEVDet4D: Exploit Temporal Cues in Multi-camera 3D Object Detection, 22.06
	BEVerse: Unified Perception and Prediction in Birds-Eye-View for Vision-Centric Autonomous Driving, 22.05
14 Nullmax, USA	BEVSegFormer: Bird's Eye View Semantic Segmentation From Arbitrary Camera Rigs, 22.03, WACV
	FastPillars: A Deployment-friendly Pillar-based 3D Detector, 23.02
15 Meituan, China (美團)	AeDet: Azimuth-invariant Multi-view 3D Object Detection, 22.11
16 Alibaba, China (阿里巴巴)	BEVFusion: A Simple and Robust LiDAR-Camera Fusion Framework, 22.05, NeurIPS
17 JD, China (京東)	JPerceiver: Joint Perception Network for Depth, Pose and Layout Estimation in Driving Scenes, 22.07, ECCV
	Benchmarking the Robustness of LiDAR-Camera Fusion for 3D Object Detection, 22.05
18 MEGVII, China (曠視)	PETR: Position Embedding Transformation for Multi-View 3D Object Detection, 22.03, ECCV
	PETRv2: A Unified Framework for 3D Perception from Multi-Camera Images, 22.06.
	BEVDepth: Acquisition of Reliable Depth for Multi-view 3D Object Detection, 22.06, AAAI
	BEVStereo: Enhancing Depth Estimation in Multi-view 3D Object Detection with Dynamic Temporal Stereo, 22.09
	MatrixVT: Efficient Multi-Camera to BEV Transformation for 3D Perception, 22.11
19 SenseTime, China (商湯)	DETR4D: Direct Multi-View 3D Object Detection with Sparse Attention, 22.12
	Fast-BEV: Towards Real-time On-vehicle Bird's-Eye View Perception, 23.01, NeurIPS
	Fast-BEV: A Fast and Strong Bird's-Eye View Perception Baseline, 23.01
	BEVDistill: Cross-Model BEV Distillation for Multi-view 3D object Detection, 22.11, ICLR
20 QCraft, China (輕舟智行)	BEV-Locator: An End-to-end Visual Semantic Localization Network Using Multi-View Images, 22.11

Representative scholars and research teams from leading institutions who have cited the applicant's work on Bird's-Eye View Perception.

Name	Institution	Country/Region	Title
Dinesh Manocha	University of Maryland at College Park	USA	AAAS/AAAI/ACM/IEEE/ANAI Fellow
Anima Anandkumar	California Institute of Technology	USA	AAAI/ACM/IEEE Fellow
Kilian Q. Weinberger	Cornell University	USA	AAAI/ACM Fellow
Mani Srivastava	University of California, Los Angeles	USA	ACM/IEEE Fellow
Jensen Huang	NVIDIA	USA	NAE Member
Deepak Ganesan	University of Massachusetts Amherst	USA	ACM Fellow
Henrik I. Christensen	University of California San Diego	USA	IEEE Fellow
Jenq-Neng Hwang	University of Washington	USA	IEEE Fellow
Ming C. Wu	University of California, Berkeley	USA	IEEE/OSA Fellow
Fatih Porikli	Qualcomm	USA	IEEE Fellow
Ming-Hsuan Yang	University of California, Merced	USA	IEEE Fellow
Roberto Cipolla	University of Cambridge	UK	FREng/IAPR Fellow
Gerhard Rigoll	Technical University of Munich	Germany	IEEE Fellow
Luc Van Gool	ETH Zurich	Switzerland	ICCV Marr Prize Winner
Marc Pollefeys	ETH Zurich	Switzerland	ACM/IEEE Fellow
Markus Gross	ETH Zurich	Switzerland	ACM/EUROGRAPHICS Fellow
Alexander Yarovoy	Delft University of Technology	Netherlands	IEEE Fellow
Max Welling	University of Amsterdam	Netherlands	CIFAR/ELLIS Fellow
Qing-Long Han	Swinburne University of Technology	Australia	IEEE Fellow
Dacheng Tao	Nanyang Technological University	Singapore	ACM/IEEE Fellow
James Kwok	HKUST	Hong Kong, China	IEEE Fellow
Jiaya Jia	HKUST	Hong Kong, China	IEEE Fellow
Ya-Qin Zhang	Tsinghua University	China	Academician of CAE/AAAS/IEEE Fellow
Tieniu Tan	Nanjing University	China	Academician of CAS

			/IEEE/IAPR Fellow
Fei-Yue Wang	Chinese Academy of Sciences	China	AAAS/IEEE/ASME Fellow
Tao Mei	HiDream.ai	China	IEEE/IAPR/CAAI Fellow
Jun Zhu	Tsinghua University	China	AAAI/IEEE Fellow
Guo-Jun Qi	Westlake University	China	IEEE/IAPR Fellow
Yunhong Wang	Beihang University	China	IEEE/IAPR Fellow
Ce Zhu	UESTC	China	IEEE/Optica/IET/AAIA Fellow
Lei Zhang	International Digital Economy Academy	China	IEEE Fellow
Zhisheng Niu	Tsinghua University	China	IEEE Fellow

Below listed some representative quotations on applicant's work, including BEVFormer, TopoNet and OpenLane-V2:

- ✧ "Table 1 shows the 3D detection results on the nuScenes val set ... BEVFormer [3], and other previous **state-of-the-art** 3D detection methods." where [3] refer to BEVFormer, by Anima Anandkumar, AAAI/ACM/IEEE Fellow.
- ✧ "A BEV encoder, **in practice BEVFormer** [34], projects these features around the ego-vehicle" where [34] refer to BEVFormer, by Luc Van Gool, winner of ICCV Marr Prize.
- ✧ "**A unified End-to-End framework** [1], which fuses multi-camera and temporal feature based on Deformable Attention and is **suitable for various kinds of perception tasks in AD**." where [1] refer to BEVFormer, by Andreas Geiger, head of the Department of Computer Science of the University of Tübingen.
- ✧ "When used with the **current best open-sourced lane-topology model** [7], lane detection and lane-topology prediction achieve state-of-the-art performance... With the release of the lane-topology task alongside the OpenLane-V2 dataset, the **predominant paradigm** for lane detection and relational reasoning models emerged, …" where [7] refer to TopoNet, and [1] refer to OpenLane-V2, by Kilian Q. Weinberger, AAAI/ACM Fellow.