InnoSenT

Innovative **Sen**sor **T**echnology – for a **better** world

MANAGE THE COMPLEXITY OF TRAFFIC

Leading in **RADAR.**

ONE SINGLE SENSOR FOR MANY APPLICATIONS

INTERSECTION MANAGEMENT

- stop bar detection
- queue length detection
- advance detection
- classification
- pedestrian & bicycle detection

- traffic light management
- junction monitoring
- wrong way
- red light enforcement
- traffic statistics

TRAFFIC MONITORING

- traffic counting
- classification

- arterial management
- traffic statistics

iSYS-5220 RADAR

RADAR SYSTEM

TECHNICAL HIGHLIGHTS

- massive MIMO configuration, 4D RADAR
  (detection of object speed, range, angle and elevation)
- detection range: 350m
- true stationary target detection (FMCW)
- high precision doppler based speed measurement
- AI technology for object classification (4 classes)
- unique object ID for every valid target
- DSP on sensor, output of object list and event messages
- InnoSenT GUI for setup

iSYS-5220 RADAR

RADAR SYSTEM

iSYS-5220 SPECIFICATION

PERFORMANCE	
maximum detection range	350m (1150ft)
azimuth field of view	-55° to +55°
elevation field of View	-15° to +15°
number of lanes	up to 16 lanes
speed interval	-233 to +233 km/h
refresh time	50 ms
MECHANICAL	
enclosure	IP67
GENERAL	
power supply	24 VDC (±15%), typ. 35W
connector	2 plugs (1xPoE/Ethernet, 1xPower/RS485)
communication interface	100/1000 Ethernet, RS485 full duplex
other features	GPS, inclination sensor for pitch & roll
approvals	FCC (US), ISED (Canada), CE (Europe)

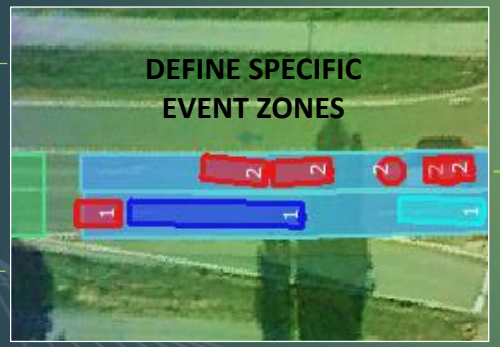
iSYS-5220 RADAR

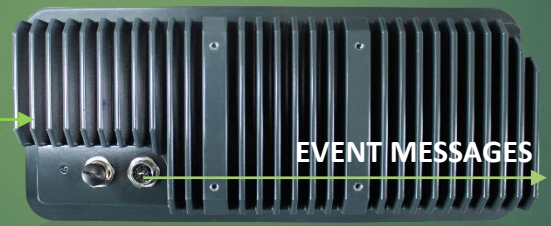
HARDWARE INTEGRATION

iSYS-5220
sensor includes radome and housing
additional accessories (mounting bracket, cables) are available
optional: power supply via PoE
100 Mbit – 1Gbit ethernet

EASY SOFTWARE INTEGRATION

SYSTEM CONFIGURATION



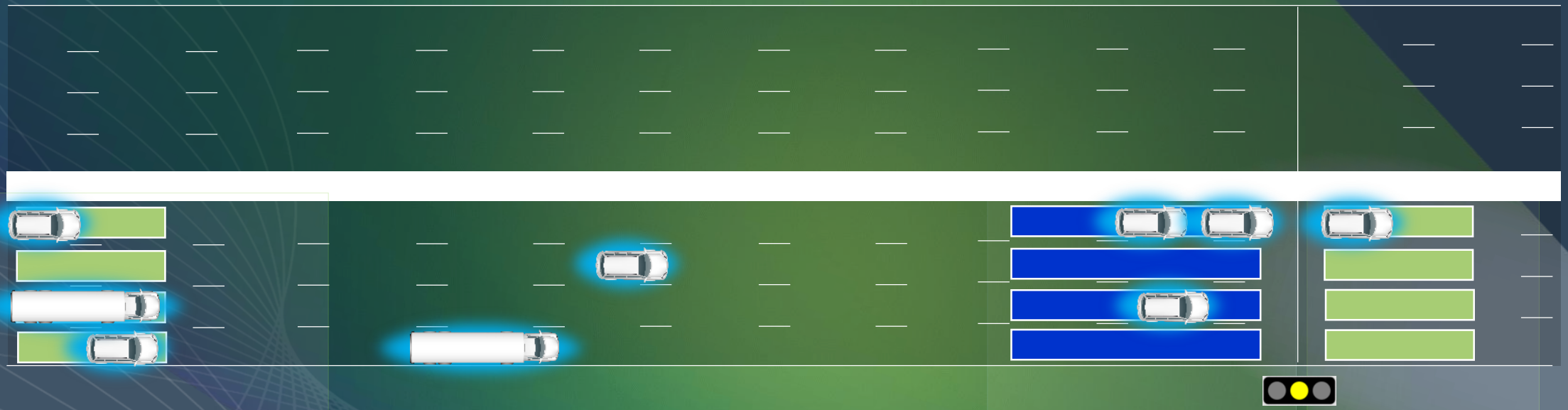


Two different outputs:

- RS 485
- Network UDP

CUSTOMER INTERFACE
e.g.loop replacement card

USE SCENARIO



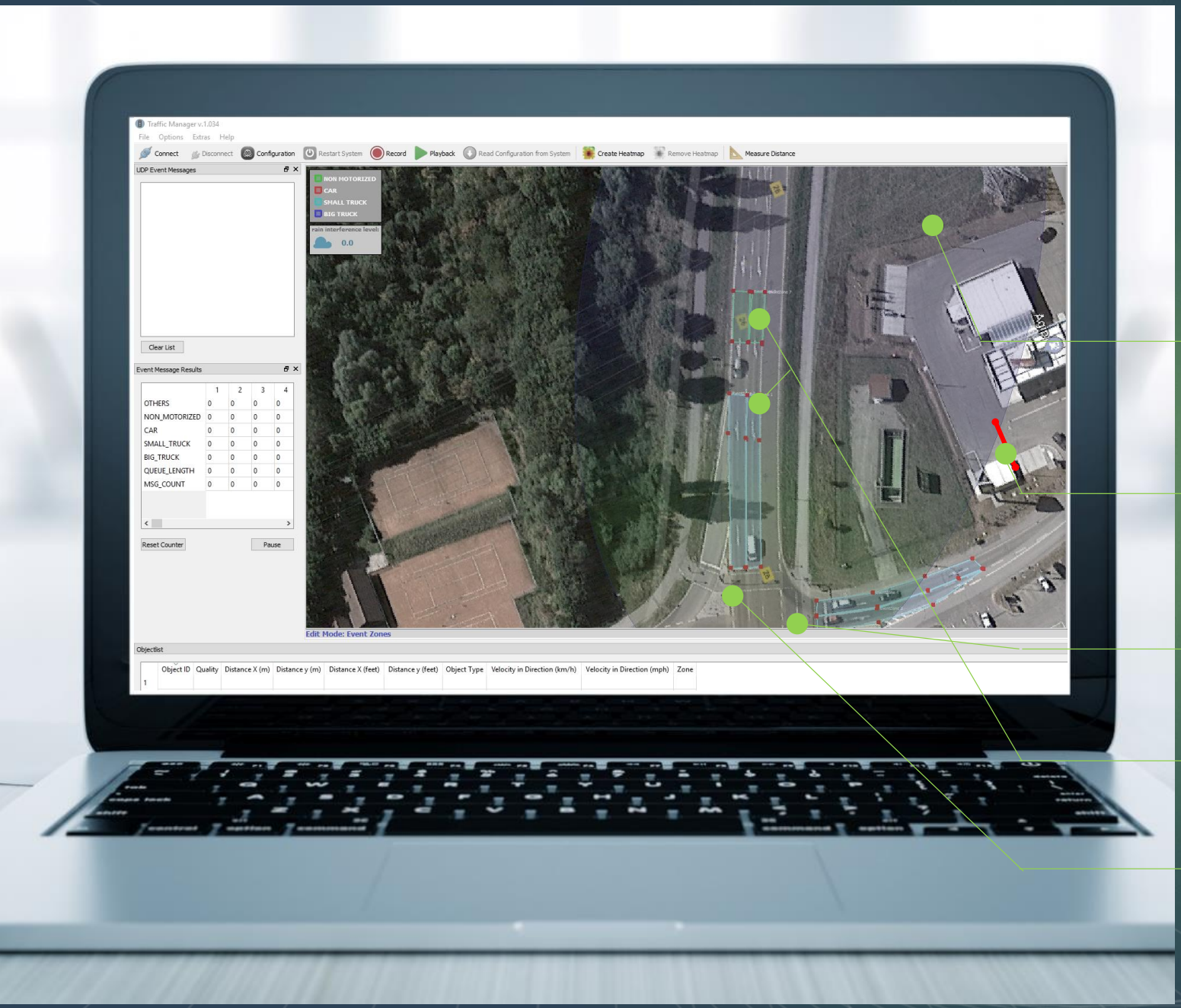
MOTION ZONE 1
Detection of moving objects

- lane specific detection
- classification

PRESENCE ZONE
Detection of stationary objects

- presence
- classification
- lane specific detection
- queue length

MOTION ZONE 2



SYSTEM CONFIGURATION: 5 EASY STEPS

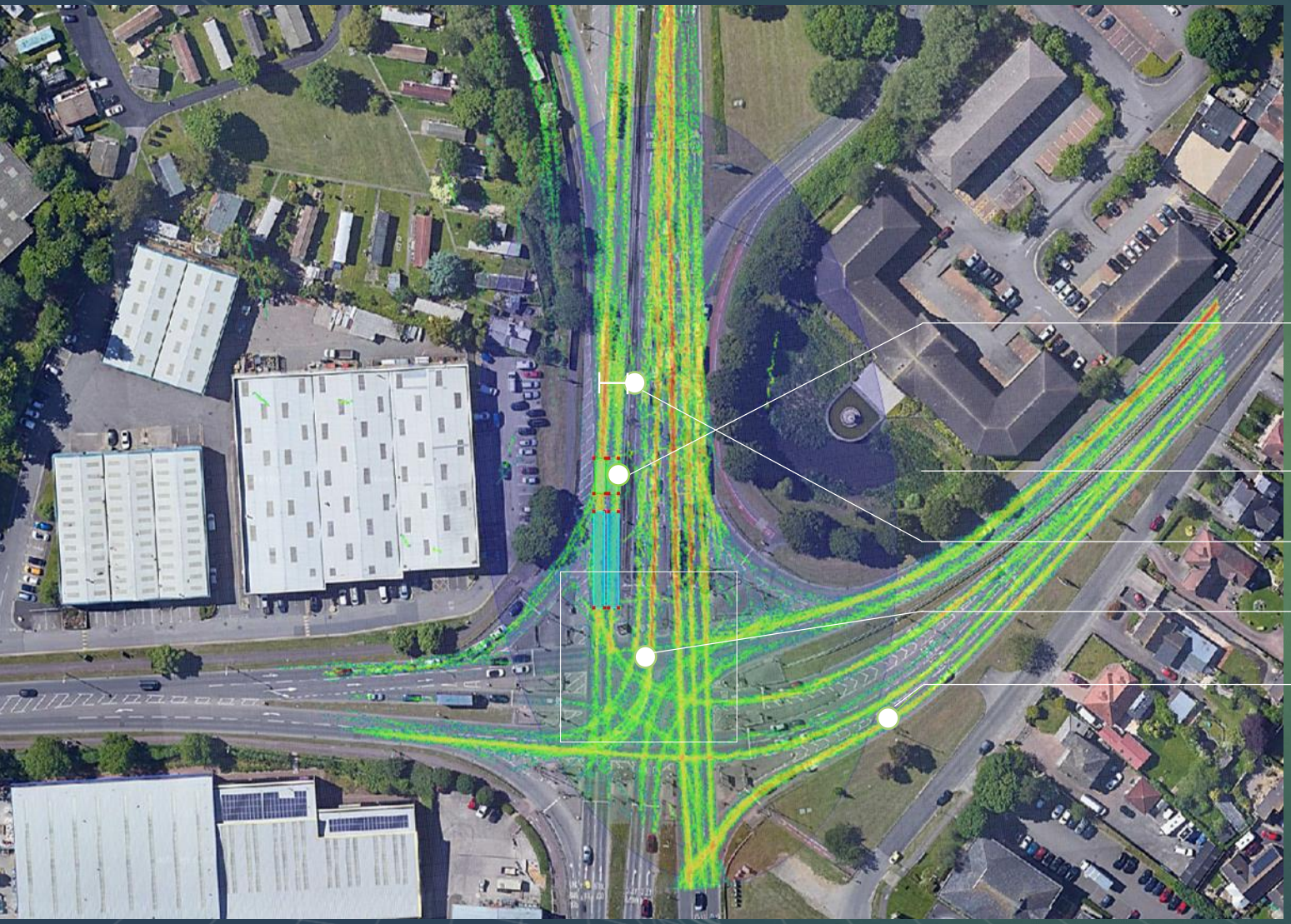
BACKROUND
Download background image from googlemaps with one click

REFERENCE LENGTH
Set reference length to scale the background image

SENSOR POSITION
Configure position on the map

EVENT ZONES
Set individual motion & presence zones

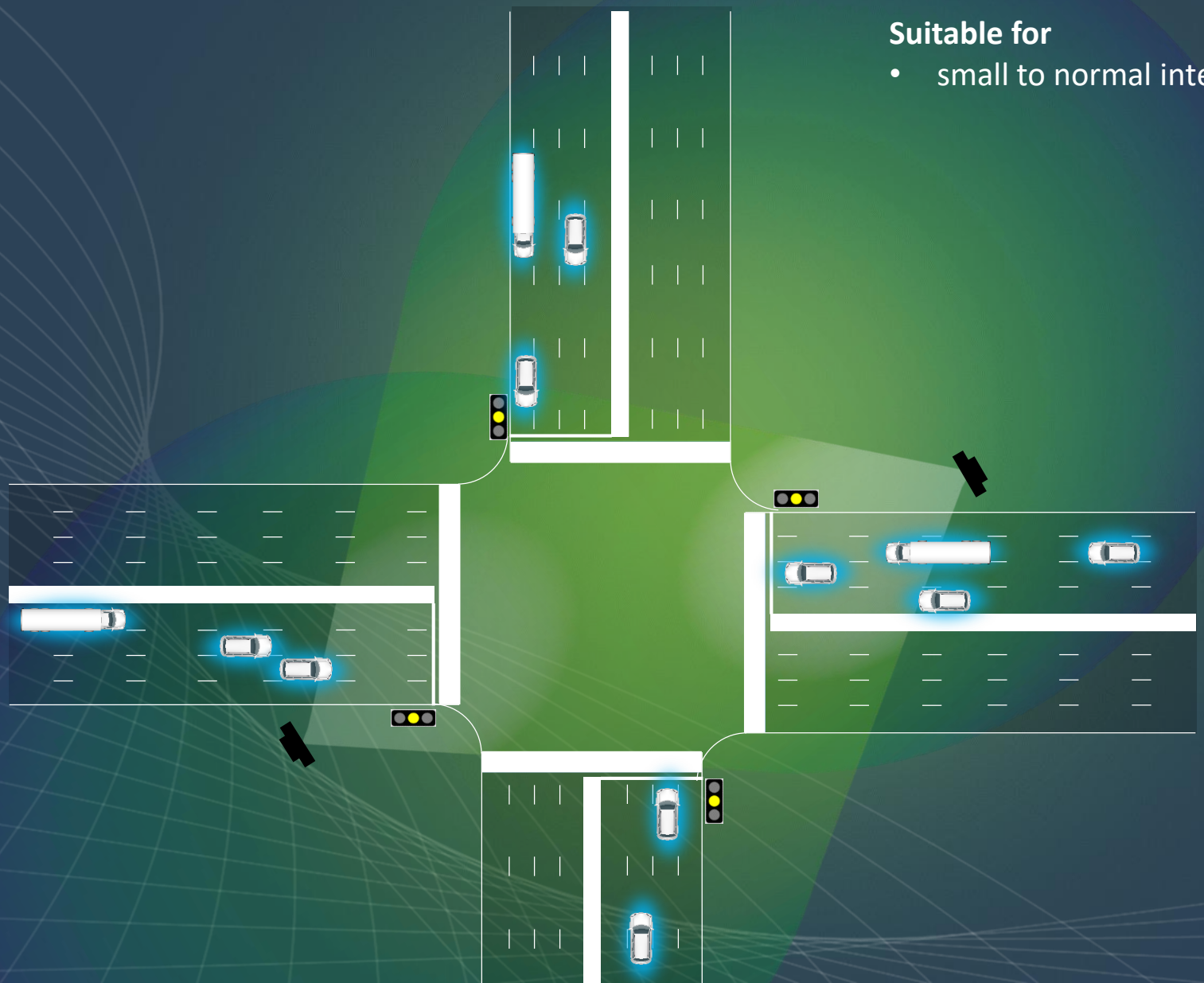
IGNORE ZONES
Set individual ignore zones



iSYS-5220: SYSTEM PERFORMANCE

- tracker works without lane configuration
  -> easy setup
- lane specific detection
- up to 16 lanes simultaneously
- tracking of vehicles within junction
- tracking of vehicles also in curves

SETUP WITH 2 SYSTEMS



Suitable for

- small to normal intersections

WHAT ARE **YOUR CHALLENGES?**

Leading in **RADAR.**

CERTIFIED

- ✓ IATF 16949:2016
- ✓ ISO 9001:2015
- ✓ ISO 14001:2015
- ✓ ISO 50001:2011
- ✓ DIN EN 61340-5-1

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