

SWISSDRONES 

Revolutionizing Aerial Operations



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Key Challenges Faced By Helicopter Operators

1. Rising Costs & Inefficiencies

- High equipment and labor costs
- Time-consuming manual processes
- Delays due to workforce shortages
- Limited automation increases inefficiency

2. Safety Hazardous Areas

- Workers exposed to high-risk environments
- Difficult access to remote locations
- Delays due to hazardous conditions
- Limited coverage in harsh terrains

3. Compliance Pressure & Environmental Risks

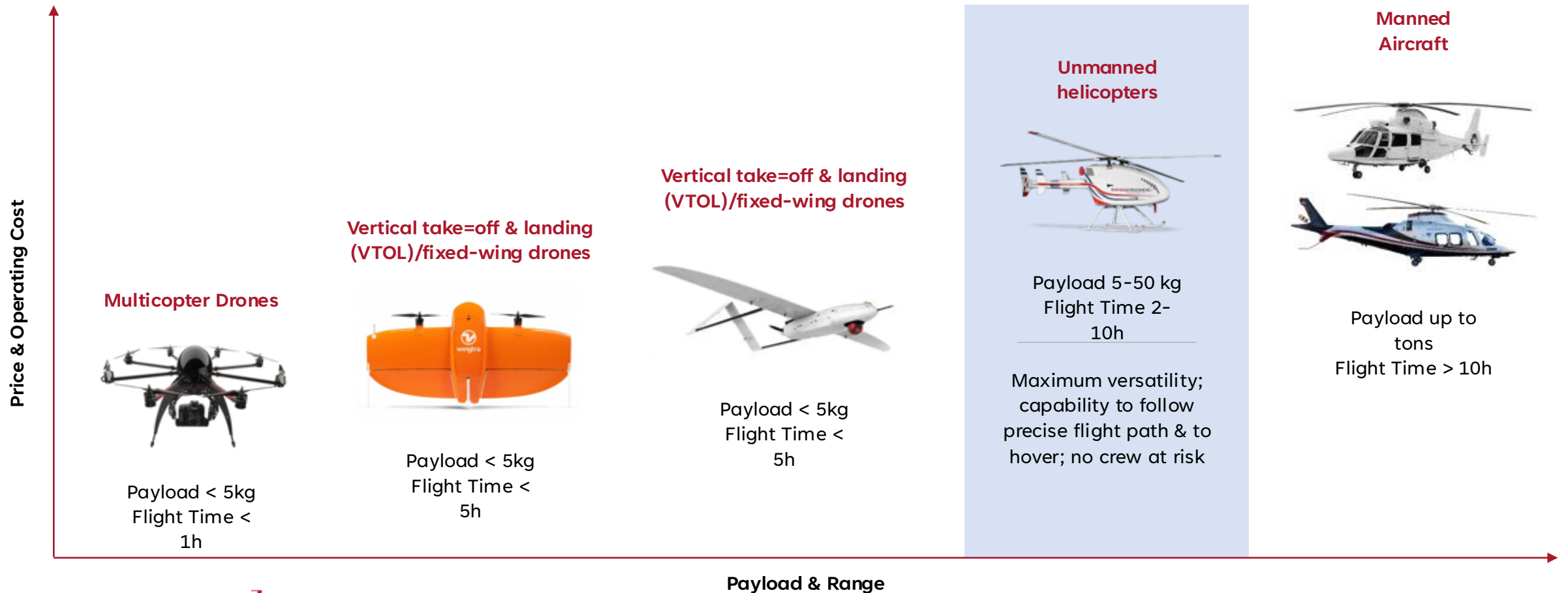
- Strict safety and environmental rules
- Heavy penalties for non-compliance
- Rising pressure to reduce emissions
- Outdated methods increase environmental impact

4. Inconsistent Data & Delayed Decisions

- Delayed data obstructs decisions
- Inconsistent or incomplete data collection
- Errors due to outdated systems
- Inability to act in real-time

Positioning: Bridging the Gap Between Small Drones and Manned Helicopters

A Safer, More Efficient Solution



Our solution



Revolutionizing Operations with Our Drone Technology

SwissDrones' unmanned helicopter system provides a cost-effective, environmentally friendly, and safe replacement of manned aircraft for operations under difficult or dangerous conditions



Safety



Flying at low altitude and near infrastructure is inherently dangerous. Flight incidents happen every year and often result in fatal outcomes

100% FLIGHT CREW RISK REDUCTION

Missions are possible under difficult or dangerous circumstances when manned operations are not feasible – eliminating the risks to flight crews



Cost Reduction



Manned helicopters are expensive to deploy. Operational costs for inspection flights easily amount to \$1,200+ per flight hour

> 70% OPERATIONAL COST REDUCTION

SwissDrones' solution is highly cost-effective compared to manned aircraft while delivering similar or better data quality



Quality Data



Manned helicopters cannot perform repeated flights on the exact same flight path, resulting in non-reproducible data sets, which limits automation of data analysis

REPRODUCIBLE DATA GATHERING

Drone flights follow pre-defined flight paths in autopilot mode, resulting in reproducible data sets that enable automation of data analysis and defect detection



Sustainability



Typical manned helicopters used for infrastructure inspection or public safety missions consume 180+ liters of fuel per flight hour

> 95% CO2 EMISSION DECREASE

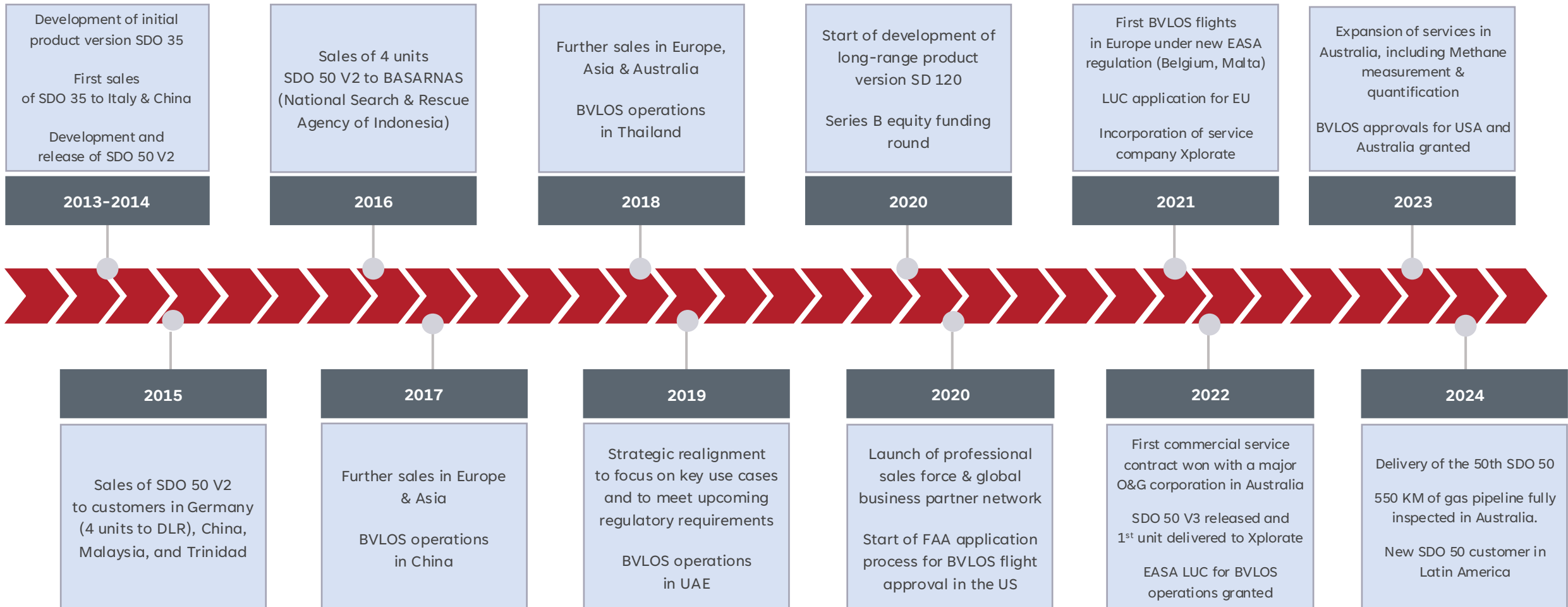
SwissDrones' unmanned helicopters can carry required cameras and sensors at > 95% reduced fuel consumption compared to manned helicopters

Key Milestones

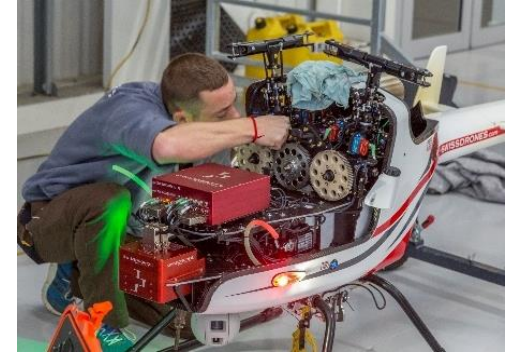
Product maturity, regulatory approvals, and market impact from 2013 - 2024

Initial product development & market validation

Transition to commercial use



Unmanned helicopter platform SDO 50 V3



- Multi-purpose unmanned helicopter system for operation **Beyond Visual Line Of Sight (BVLOS)**
- Up to **42 kg max payload**; max operational range of **100 km**
- **Autopilot system** - programmable **autonomous flight** patterns, including take-off & landing
- **Payloads** typically include high-resolution optical cameras, IR, multispectral, LiDAR, radiation sensors

Best in class: quality of imagery & data capture at scale



FLIES FARTHER

Beyond Visual Line Of Sight (BVLOS) flying allows coverage of broad geographic distances to eliminate the repositioning time for engineering teams.



REPEATABLE FLIGHT PATTERN

Precision navigation allows sensors to capture the same vantage point every time. Critical for creating digital twins and AI applications based on time series data capture.



SPEED OPTIMIZED FOR PRECISION DATA CAPTURE

Ability to fly at slow speeds necessary to capture high resolution photos and highly accurate sensor data. Provides the highest quality of imagery required for customer needs.



CAN CARRY MULTIPLE SENSORS

Multi-sensor payloads directly reduces labor requirements as single missions can perform multiple tasks in parallel such as detailed, multi angle, high-resolution photography married to 3D LiDAR mapping.



Data analytics

Ensuring the integrity and safety of key industrial, natural and human assets



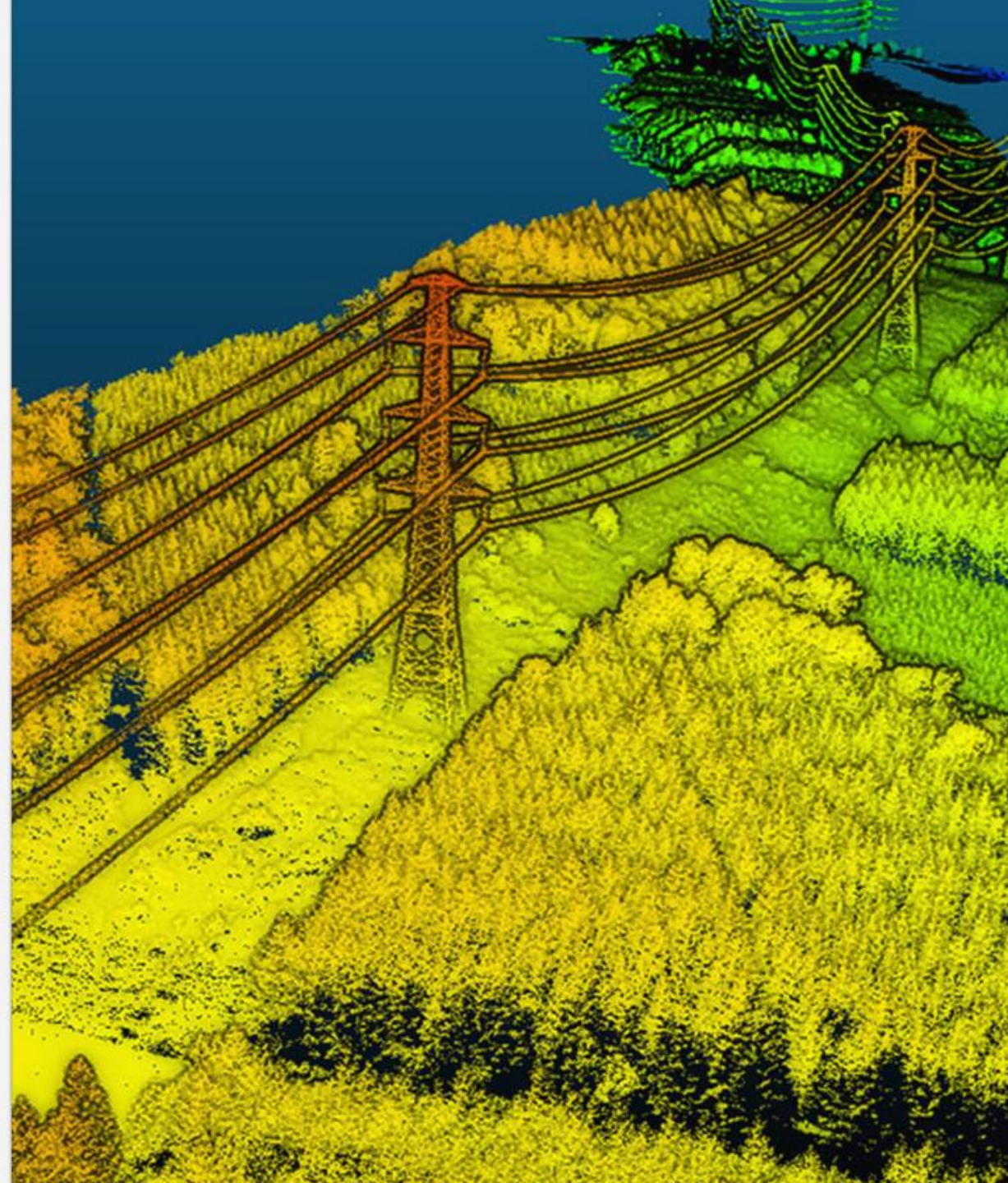
Digital asset intelligence for digital twins, topographical mapping, progress monitoring



Proactive event response spotting leaks, changes, accidents and trespassing with real-time surveillance



Scalable data management processing massive data flows, enabling in-depth analysis and actionable signal generation



The Regulatory Lead

Ahead in a Regulated Global Market for Long-Range Drone Solutions

- We fly BVLOS since 2016
- BVLOS Approvals: Granted or in advanced progress across key markets, including 31 European countries, Australia, Canada, and Indonesia.
- FAA Airworthiness: First approval for an unmanned drone over 55 pounds in the US.
- Industry Firsts: Among the pioneers in heavy drone (55+ pounds) category achieving global regulatory milestones.
- Future Outlook: Targeting Aircraft Type Certification from EASA by 2029—only OEM in this class pursuing it.

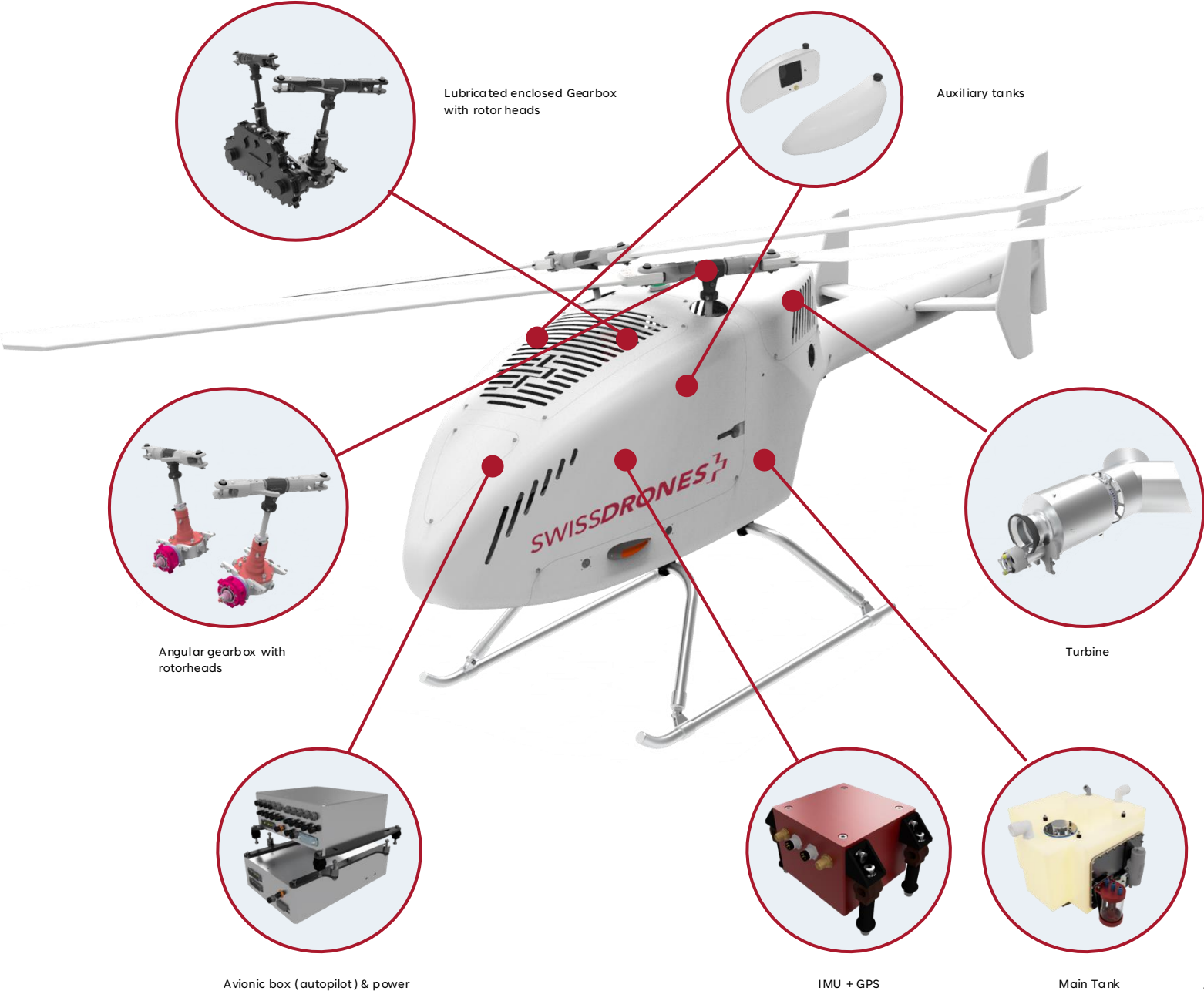
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EASA
European Aviation Safety Agency



SDO 50 System



SDO 50 Specifications

Maximum Take Off Weight: 87 kg

Dry Operating Mass: 53.8 kg

Useful Load: up to 33.2 kg (including fuel)

Max Range: 216 km (subject to continuous communication coverage)

Max Speed: 49 KTAS (90 km/h)

Cruise Speed: 39 KTAS (72 km/h)

Max altitude: 10,000 ft AMSL (3,048m)

Max Endurance: 3h 02min (full fuel, no additional payload)

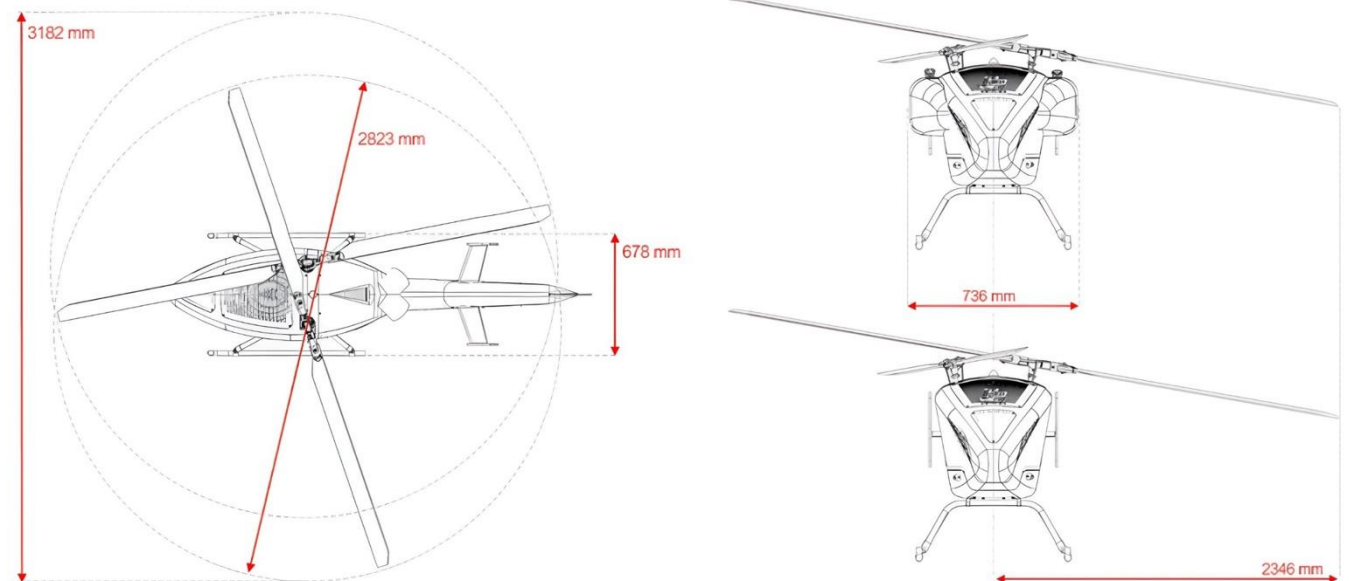
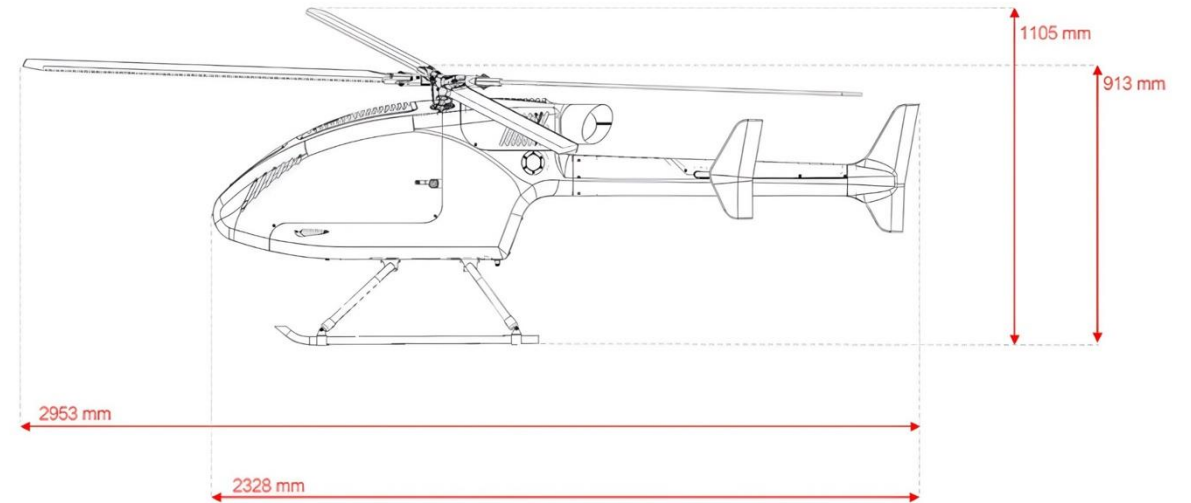
Wind Resistance: 21.6 KTAS (40 km/h)

Engine: single shaft-turbine

Fuel Type: JET A1

Fuel Consumption: 12.5 l/hour (ISA conditions)

EASA Approval Level: SAIL II



SDO50 V3

Flight Performance



Useful Payload (kg)	Fuel Onboard (L)	Max Range (km)	Max Endurance (H:MM)
5	33.8	188	2:37
10	27.7	151	2:06
15	21.5	115	1:36
20	15.4	79	1:06

Performance figures reflect the aircraft in minimum configuration under ISA conditions, including average fuel consumption and standard reserves. Performance range (point-to-point) assumes continuous communication coverage, based on the aircraft's dry operating mass. SwissDrones is not liable for differences between expected and actual performance.

Company Overview

Industry-leading Swiss Company

Established in 2013

Headquartered in Zurich, Switzerland

Manufacturing site in Buchs, Switzerland

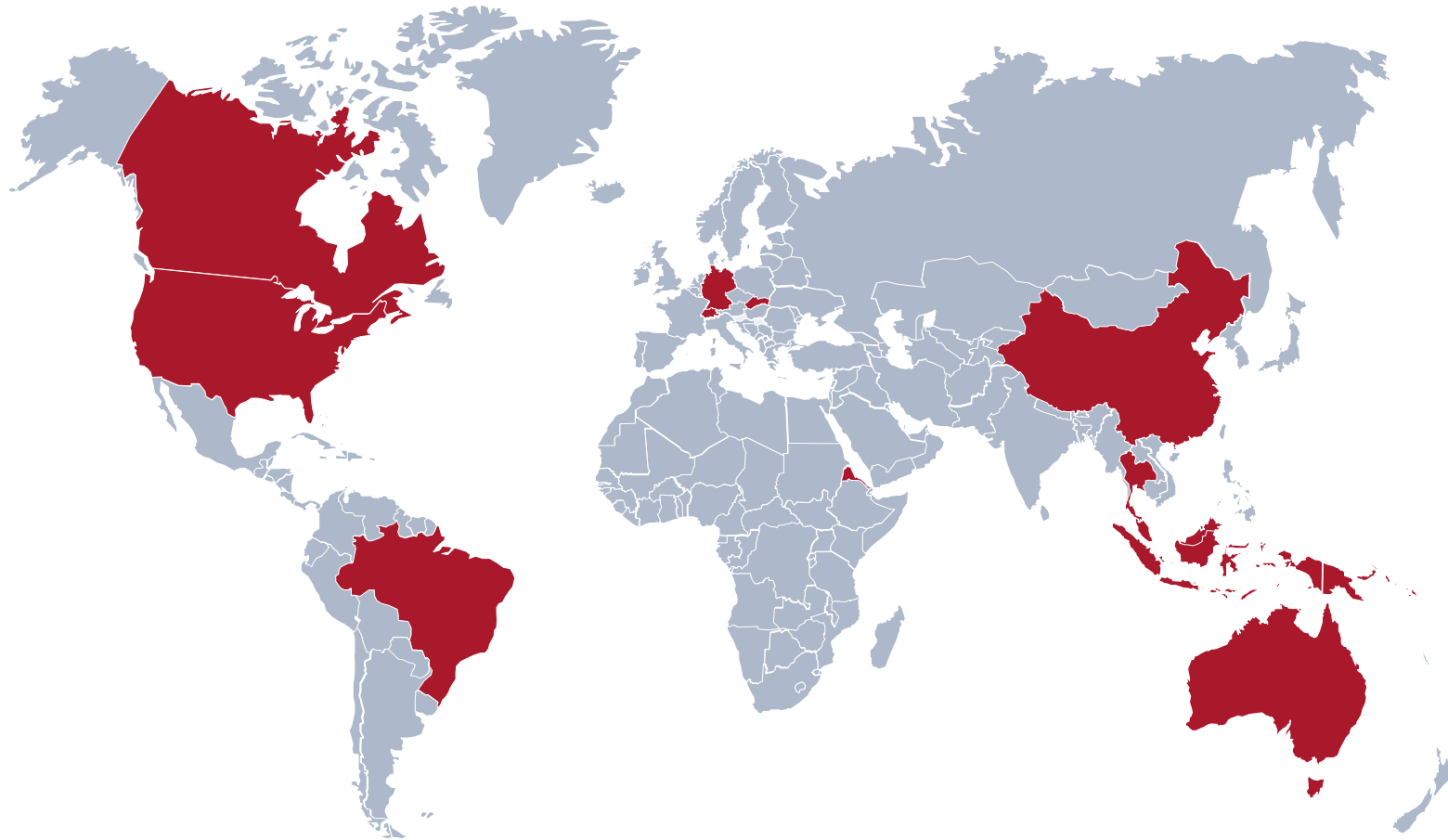
50 Full-Time Employees



SWISSDRONES+



Worldwide Customer Presence



15
Large enterprise and
governmental customers

14
Countries

40+
SDO 50's deployed

6
Continents

35
BVLOS Country
Approvals

2015
First Delivery

Applications



Aerial Surveillance

Natural disaster support

Wildfires and hot spots detection, floods, hurricanes, etc.

Police Surveillance

«Eye in the sky»

Border Patrol

Detection of illegal immigration, terrorist intrusion, smuggling, etc. (land and maritime)



Search & Rescue

Finding & locating missing people

Including locating mobile phones

Operation over land and water

Including automated AI search payload

Dropping life-saving equipment

Self-inflatable jacket, blanket, etc.



Inspection & Monitoring

Powerlines

Defect identification, vegetation encroachment analysis, 3D modelling/digital twin

Pipelines (O&G)

Leak detection, oil spills, illegal tapping, change detection

Railways

RGB, LiDAR, Multispectral cameras, vegetation monitoring

Civil protection

Nuclear power plants, radiation sources survey/inspection



Partners & Memberships

Highlighting our valued partnerships and our involvement in industry associations.

Partners



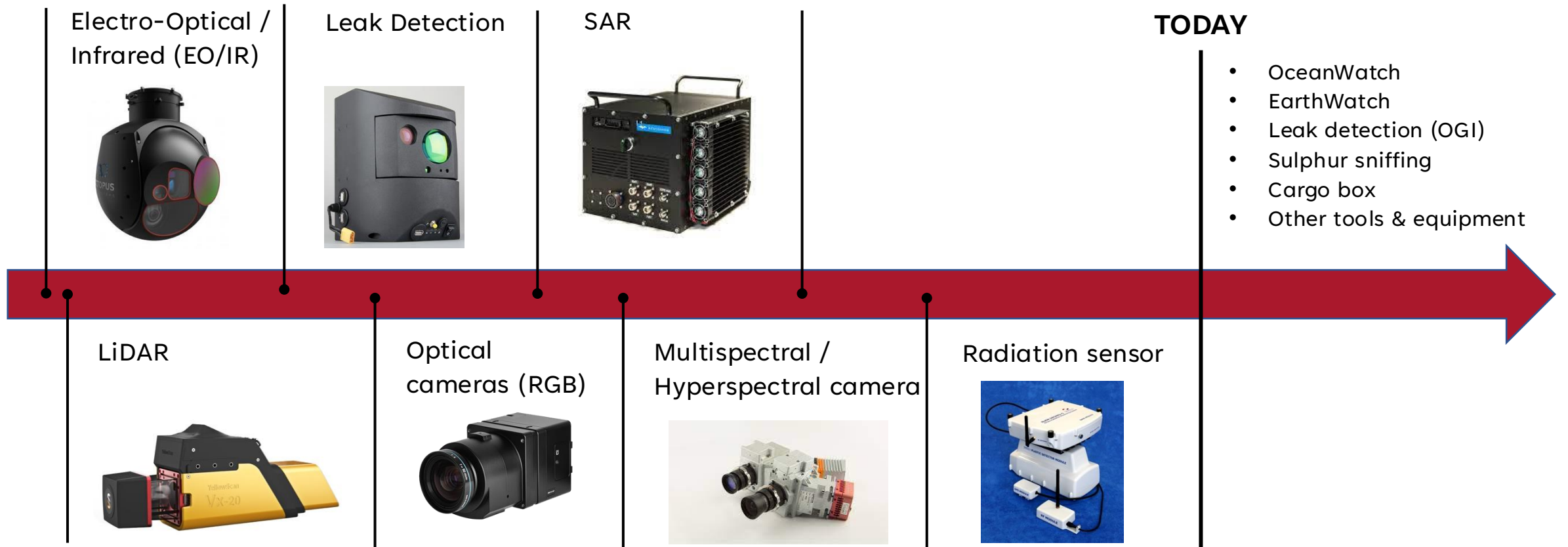
Memberships



Use cases and related payloads

	Sensors Use case	EO/IR	LiDAR	Optical camera (RGB)	OceanWatch	EarthWatch	Leak detection sensors	Multispectral Hyperspectral	SAR	Radiation sensor	Other tools/equipment
Aerial Surveillance	Natural disaster support	✓			✓	✓			✓		
	Police Surveillance	✓	✓			✓			✓		
	Border Patrol	✓	✓		✓				✓		
Search & Rescue	Finding and locating missing people	✓		✓	✓						
	Operation over land and water	✓			✓	✓					
	Dropping life-saving equipment										✓
	Powerlines		✓	✓		✓					
Inspection	Pipelines (O&G)	✓	✓	✓			✓				
	Railway		✓	✓		✓					
	Environmental monitoring		✓			✓		✓			
	Civil protection	✓								✓	

Roadmap for payload integration with SDO 50 platform



Thank you!

Name

Role

✉ EMAIL@swissdrones.com

📞 PHONENUMBER

