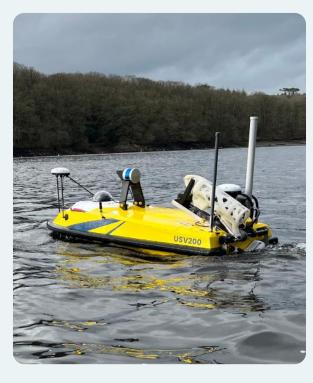
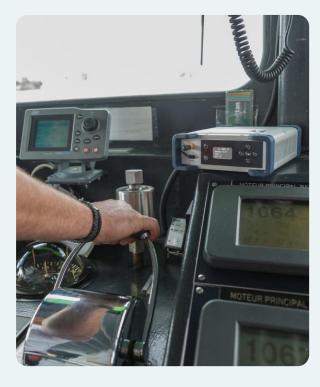


Rental Catalog 2025









GEOLOCATION • NAVIGATION • ACOUSTIC REMOTE SENSING • OCEANOGRAPHY

Choose CADDEN

25+
years of experience

Our values

INNOVATION
KNOW-HOW
AGILITY
PASSION
TEAM SPIRIT

Recognized expertise

CADDEN is a French supplier, integrator and manufacturer of precise positioning systems for geosciences and precision navigation systems.

Since its creation in Nantes in 1999, Cadden has established itself as the specialist in the French supply and manufacture of sensors and acquisition systems for **geosciences**, **navigation**, **remote sensing** and **hydrography**.

- √ 3 fields of application: OCEANS, ROBOTICS & G≡OD*
- Trust-based partnerships with our customers, suppliers and partners
- ✓ High-tech solutions at the cutting edge of innovation, used worldwide



OCEANS

Technologies designed for applications in oceanography and marine geophysics to improve knowledge and control of marine and aquatic environments

ROBOTICS

Sensors and services focused on 3D positioning, orientation measurement and optical remote sensing technologies.



CADDEN's brand brings together solutions dedicated to hydrographic and marine navigation applications, where precision and reliability are the keys to success.



Made in France

Developed by our own R&D and technical support teams, the **GEOD*** range is designed, engineered and manufactured in France.

For this range, we give preference to local players, with the majority of our suppliers based in the Pays de la Loire region in France.

Multiple applications

Hydrography, sedimentology, dredging, public works, renewable energies, offshore, port safety, water extraction, structure inspection, dredging, aeronautics, automotive, SLAM, GIS, BIM... and much more!



Magnetometry



Marine instrumentation



GeoRental & Navigation



Hydrography & bathymetry



Acoustic imaging



Sedimentology



Dredging



Renewable energies



Aeronautics



Mobile Mapping & autonomous vehicle



Security



Logistic



Credits : Stéphanie GASPARI



Credits : LAMIH UMR CNRS 8201



Credits: Laurent de Gebhardt - le studio 360

Trustworthy partners

CADDEN distributes **over 30 professional brands** dedicated to oceanographic and robotic applications. A selection of the world's best manufacturers, a commitment to trust based on long-standing partnerships to guarantee **reliability and quality**.



















































A team at your service

ASSISTANCE

Our team will support you at every stage of your project. We will always propose the offer best suited to your applications, from the supply of sensors and solutions, to the installation of your equipment, or the training of your teams.

ADVICE

Benefit from our technical support: before, during and after delivery of your equipment.

FLEXIBILITY

Depending on your project, our experts will put their skills at your disposal to create a tailor-made solution combining several sensors and solutions.

They are already convinced





















































































© Grand Port Maritime de la Rochelle



© Ideol BYTP ECN V. Joncheray - BD

Rental

Optimize profitability and ensure the success of your projects by choosing professional-quality equipment from a selection of **products available worldwide**. Our rental fleet includes a wide choice of sensors and complete acquisition systems for a wide range of applications. Our experts are at your disposal to help you choose the right equipment for your project.

- Time saving
- Cost savings
- State-of-the-art solutions

- Try before you buy
- One-off or recurring needs
- Space saving

EXAMPLES OF SYSTEMS AVAILABLE FOR RENTAL

Non-exhaustive list













GNSS receivers

USV

Side-scan sonar Inertial Navigation Units Hydrographic echosounders

Electronic

/ They rented our systems



A.I.R. - Atlantique Ingénierie Réseaux

After training with our technical support, the survey office rented the USV100 marine drone on several occasions to carry out bathymetry projects in France.

The data provided by the USV100 is then coupled with topographic data. The USV100 is used for hydrographic operations in places where access is sometimes difficult.

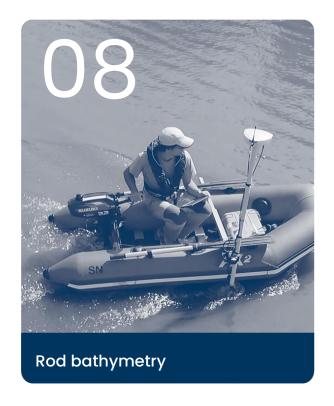


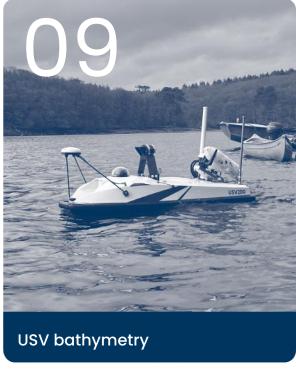
Ocealis Consulting

Ocealis Consulting asked CADDEN to carry out bathymetric surveys of the canals on the Noirmoutier island using the USV200. In this complex environment, there are many constraints, and a compact on-board system is needed to cope with the shallow draught and sometimes narrow passages.

The USV200 meets these requirements, and the data obtained is then combined with the aerial drone data.









A brand created by CADDEN

Having confirmed its expertise and leading position as a distributor, CADDEN decided to set up its own R&D department to design innovative precision geomatics products under its own brand name. The GEOD® range includes solutions dedicated to hydrographic and marine navigation applications. These solutions are used worldwide for missions where precision and reliability are the key to success



BALI

Lightweight, self-contained bathymetry system combining an RTK GNSS receiver with a single-beam echo sounder.



USV

Autonomous, compact and portable single-beam or multi-beam marine drones for hydrographic surveys.







Increased productivity



Cost saving



Accuracy



Security



Sustainable development



Made in France

- USV = Unmanned Surface Vehicle
 PPU = Portable Pilot Unit
 MEMS = micro-electromecanical system



Rod bathymetry





BALI

The BALI ("Bathymetry Light") bathymetric measurement system is a compact, self-contained kit that is easy to operate and fits onto a single rod.

Combining an RTK GNSS receiver with a bathymetric sounder, BALI processes and stores water depth measurements synchronized with a georeferenced position, even in difficult areas.

- Easy to set up by a single operator
- No hydrographic software required
- Real-time centimetric precision (RTK)



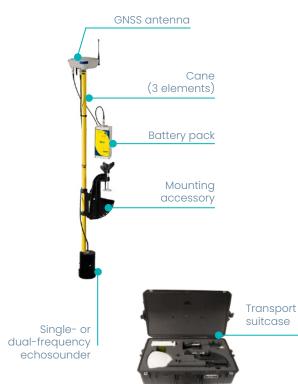
⊘ SINGLE BEAM

Modular GNSS antenna

BALI GNSS antenna, boom-mounted and integrated on a boat or marine drone.

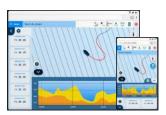


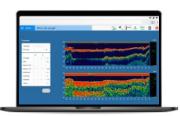




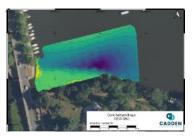
Integrated webserver

- Line tracking, background map integration, waypoint creation, etc.
- ✓ Wifi connection with smartphone, tablet or PC
- Remote maintenance and updates





Probe interpretation, echogram visualization



Example of a single-beam bathymetric survey

Height	1,75 m (assembled)		
Weight	11 kg		
Power supply	NiMH battery		
Autonomy	Up to 10h		
Echosounder type	30/200 kHz, 200 kHz, 200/450 kHz		



USV bathymetry





USV100

Robust and lightweight, the USV100 marine drone is equipped with the BALI GNSS antenna and its integrated webserver, is easy to use (in manual or stand-alone mode) and requires no hydrographic software.

Easy to set up by a single operator, the USV100 carries out hydrographic and bathymetric surveys with centimetric accuracy.

- Easy to transport in the trunk of a car
- ✓ Measurement at shallow depths from 15 cm draft
- Several sensor options (ADCP, side-scan sonar, etc.)

⊘ SINGLE BEAM

Multiple application

Rivers, streams, lakes, drinking water bodies, pipelines, harbors, coasts, creeks, dams...







Single- or dual-frequency echosounder

Cacco

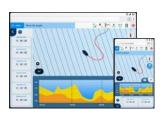




Compact

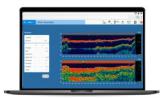
Integrated webserver

- Line tracking, background map integration, waypoint creation, etc.
- Wifi connection with smartphone, tablet or PC
- Remote maintenance and updates



Example of a single-beam

bathymetric survey



Probe interpretation, echogram visualization

Cota amongsta Consulta Consult

Standard equipment

- 1 USV100
- · 1 rechargeable battery with charger
- 1 remote control
- 1 BALI (smart antenna + echo sounder)
- 1 PTZ camera
- Stand-alone navigation software
- 1 carrying case
- 1 communication kit

Options

Stand-alone BALI mounting kit, internal UHF modem (403-473 MHz), GSM modem, ADCP, side-scan sonar, additional batteries, etc.

 Dimensions
 105 x 55 x 38 cm

 Weight
 17 kg

 Autonomy
 8h to 10h

 Draft
 15 cm

 Speed
 5 m/s max.

 Positioning
 RTK (1 cm) - SBAS (0.5 m)



USV bathymetry





Equipped with a single-beam or multibeam echosounder, the USV200 marine drone is ideal for high-density hydrographic and bathymetric surveys to map the seabed.

With its integrated multibeam system in "flush" mode, the USV200 adapts to all types of water surface, including very shallow or remote areas.

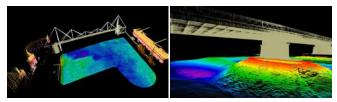
- Easy launching with dedicated launching cart
- ✓ Measurement at shallow depths from 15 cm draft
- Several sensor options (multiparameter probe, Lidar, etc.)



SINGLE OR MULTIBEAM

Full mapping in a single pass

Underwater and overwater mapping using the USV200's integrated Lidar and multibeam bathymetric echosounder.



London, UK

Mauves-sur-Loire, France



Multiple applications

Rivers, lakes, drinking water bodies, harbors, coasts, inland seas, creeks, dams...



Bathymetry software



10

Training provided by our manufacturerapproved technical support team.

Standard equipment

- 1USV
- 2 rechargeable batteries with charger
- 1 remote control
- · 1 inertial navigation unit
- 1360° camera
- 1 anti-collision radar
- 1 stand-alone navigation software
- 1 communication kit
- 1 carrying case

Options

Single or multibeam echosounder with hull ceilometer, R2SONIC modes (UHR 700 Khz, Truepix), water column data, oceanographic winch, multiparameter probe, laser scanner, launching cart, additional batteries, etc.

Dimensions	160 x 70 x 40 cm
Weight	32 kg¹
Autonomy	8h to 10h
Draft	15 cm
Speed	5 m/s max.
Positioning	RTK (1 cm) - SBAS (0,5 m)
BALI antenna with webserver	Single beam version only
Sondeurs	SINGLE: 30/200 kHz, 200 kHz, 200/450 kHz.
	MULTI: R2Sonic Sonic-V series, Sonic-V+ series, etc.

Our sensors & solutions

















GNSS receivers

Our GNSS receivers incorporate the latest innovations for precision geolocation in all circumstances. The use of multi-constellation GNSS signals guarantees sub-meter to centimeter accuracy surveys in real time in the most challenging environments, such as vegetation cover and urban canyons.

/ GNSS receivers





	BX992
GNSS	Multi-frequency
RTK Accuracy	< 8mm + 1ppm
Webserver	Yes
True Heading	Yes
Internal inertial system	Yes





	AtlasLink
SBAS Accuracy	0,6 m
ATLAS Accuracy	8 cm
RTK Accuracy	1,5 cm
True Heading	-
Rate	Up to 20 Hz







	SP85	SP90m	
GNSS	Multi-frequency		
Accuracy	8 mm + 1 ppm		
Internal GNSS	Yes		
Internal UHF	Yes		

/ Field notebook



	Ranger 5
Screen dimensions	12,7 cm
Communication	Bluetooth, Wi-Fi, GNSS and WWAN, Verizon and AT&T certified

/ UHF radio





	ADL Vantage
Frequencies	390-430, 430-470 MHz

/ Robotic total laser station

Trimble



	SPS930
Frequency	20 Hz
Update frequency	Up to 20 Hz
Range	50 to 300 m
Accuracy	0,003 to 0,004 m
Remote control	Yes

/ GNSS correction service

teria



GSM NtripPrecise geolocation compatible with RTK GNSS receivers.

OUR SENSORS & SOLUTIONS

Inertial Navigation Systems

Our range of inertial and attitude computers incorporates gyrometric and accelerometric sensors designed to provide precise, real-time orientation measurements (from 1° to 0.01°) that are stable over time. Inertial systems can be adapted to any type of environment, whatever the complexity and dynamics of the project (shuttle, marine drone (USV), ship, underwater drone (ROV), etc.).









	Ellipse serie	Ekinox serie	Navsight
Roll/Pitch	0,1° 0,03° to 0,015°		0,015°
Heading	0,8° (Magnetic heading) 0,5° (GNSS compass heading)		0,02°
Heave	5 cm or 5%		
GNSS RTK position maintenance	Only -D version	-	
Rate	Up to 200 Hz -		
Subsea version		Yes	











	Lodestar	Sprint	Sprint-Nav	Sprint-Nav Mini
Roll/Pitch	0,01°			0,02°
Heading	0.2°		0,05° / 0,04° / 0,02° / 0,01°	0,5°
Rate	Up to 100 Hz		-	Up to 200 Hz
System integration	ROV, offshore	AUV, ROV, side-scan sonar	USV, ROV, AUV	USV, ROV, AUV, side- scan sonar
Integrated DVL	No		Yes	





	Phins
Roll/Pitch	0.01°
Heading	0.01°
Heave	5 cm or 5%
Rate	Up to 200 Hz
Application	Surface, subsea

xsens







Série MTi-1	Série MTi-100	Série MTi-600		
IMU = Raw data from accelerometers, gyroscopes and magnetometers				
MTi-1	MTi-100	MTi-610/MTi-610R		
VRU = IMU + Roll and Pitch via the internal Kalman filter				
MTi-2	MTi-200	MTi-620/MTi-620R		
AHRS = VRU + Magr	AHRS = VRU + Magnetic heading via the internal Kalman filter			
MTi-3	MTi-300	MTi-630/MTi-630R		
INS/GNSS = AHRS + position and velocity				
MTi-7	MTi-G-710	MTI-670/MTi-670G		
INS/GNSS = AHRS + position and GNSS velocity				
-	-	MTi-680G		





	IMU-108
Roll/Pitch	0.03° RMS
Heave	5 cm or 5%





	Bluenaute Premium	
Roll/Pitch	0,01°	
Heading	0,2°	
Heave	5 cm	
Rate	-	
Application	Maritime vessel	

OUR SENSORS & SOLUTIONS

Lidars

Lidar laser sensors with TOF (Time-Of-Flight) technology perform very precise distance and light intensity measurements to render georeferenced 3D point clouds, statically and dynamically, under all weather conditions. Lidars are used in many fields: autonomous vehicles, agricultural robots, 3D mapping (mobile mapping), etc.







	XT32	QT64	
Range	0,1 m to 120 m	0,1 m to 30 m	
Vertical aperture	31°	104,2°	
Accuracy	+/-1 cm	+/- 2cm	

Velodyne LiDAR



	VLP 16
Range	100 m
Aperture	30°
Measurement rate	5 Hz – 20 Hz
Accuracy	3 cm

Hydrographic echosounders

Our echosounders meet a wide range of needs and cover numerous underwater applications: bathymetric or geophysical surveys, measurement of sedimentary strata, metal anomaly detection and object identification, seabed classification, fauna and flora assessment, and more.

/ Bathymetric echosounders

Multibeam echosounders









	Sonic 2024-V	Sonic 2022-V	Sonic 2020-V
Selectable frequencies	170 kHz - 450 kHz 200 kHz - 450 kHz		200 kHz - 450 kHz
Option 700 kHz	Yes		
Option 90 kHz - 100 kHz	No		
Resolution	0,3° x 0,6° at 700 kHz	0,6° x 0,6° at 700 kHz	1° x 1° at 700 kHz
Aperture	Up to 160°		
Sounding range	400 m +		
Techincal mode	Ultra High Density (UHD) TruePix compressed water column ™ Ultra High Resolution (UHR) 700 khz Multispectral backscattering		
System integration	USV, ROV, AUV, survey vessel		

Single-beam echosounders







	30/200 kHz 200/400 kHz	
Frequencies	30/200 kHz 200/400 kHz	
Weight	740 g 300 g	
Range	0,5/200 m 0,15/200 m	
Resolution	1 mm	





	Sounder 1612	
Frequencies	24 to 210 kHz	
Weight	9 kg	
Range	2000 m+	
Resolution	1 cm	





	Echoscope		
Frequencies	340 - 700 kHz		
Weight	23,6 kg		
Range	600 m		
Resolution	3 cm		

/ Scientific echosounders





	DT-X		
Frequencies	38, 70, 120, 200, 420 & 1000 kHz		
Range	0,5 to 2000 m		
Weight	12 kg		
Carrier	Fixed station, boat, AUV, USV, buoys		
Application	Marine habitats, biomass, species distribution, bottom classification, bathymetry		

/ Sub-Bottom Profilers







	Echoes 3500	Echoes 10000
Selectable frequencies	1,7 – 6 kHz	5 – 15 kHz
Penetration	20 m (sand), 150 m (clay)	40 m (clay)
Beam size	45°	30°
Vertical Resolution	20 cm	8 cm
Depth	1 to 200 m	1 to 150 m
Weight (air)	58 kg	26 kg

KNUDSEN



	Pinger	
Selectable frequencies	3,5 – 200 kHz	
Penetration	NC	
Beam size	30° – 9°	
Vertical Resolution	10 cm - 2 cm	
Depth	2 to 400 m	
Weight (air)	21 – 29 kg	

OUR SENSORS & SOLUTIONS

Marine acoustics

We provide you with cutting-edge technologies for precise underwater positioning, current analysis, inertial navigation and detailed seabed imaging. These solutions meet the needs of the most demanding offshore and river environments.

/ USBL









	Micro-Ranger 2	Mini-Ranger 2	Ranger 2
Precision with internal inertial unit	~5% of range	~1,3% of range	~0,04% of range
Precision with external inertial unit	-	1,3%	-
Max. range	995 m	4000 m	>11 000 m
Target number	10 per sequence	10 simultaneous	>99
Transpondeur	Nano, WSM6+, RT-6		



	Gyro USBL
Range max.	Up to 7000 m
Roll/Pitch	0,01°
Heave	5 cm or 5%
Operating	Ranger 2 USBL and Marksman LUSBL

/ Transponders









	RT 6-1000	RT 6-3000	RT 6-6000
Depth	1000 m	3000 m	6000 m
Frequencies	20 - 3	34 kHz	14 - 19 kHz
Workload limit	150 kg	150 kg 1275 kg	
Battery life	>13 month >32 month in activity		in activity
Inclinometer accuracy	±5°		
Surface unit	Option : Shallow Water Deck Kit (Deck Topside) Deck Topside, Ranger 2 USBL		Ranger 2 USBL

/ USBL beacons











		_	•	=
	WSM 6+	Nano	AVTrak 6	DPT 6
Depth	1000 - 4000 m	500 m	500 - 3000 m	3000 - 7000 m
Frequencies	20 - 34 kHz			
System integration	ROV	ROV, AUV, cable, diver	AUV, cable	-

/ ADCP

Sonardyne





	Origin 65	Origin 600
Depth measures speed	12 to 800+ m	0,6 to 50+ m
Depth measures water height	4500 m	150 m
Accuracy	±1°/0.1°	
Weight (air)	230 kg	19,2 kg

/ Mini scanning sonar

EchoLogger



	MRS900
Frequencies	900 kHz
Weight (air)	580 g
Range	60 m
Resolution	7,5 mm

/ Side-scan sonar







	Klein 3000	Klein MA-X View 600
Frequencies	100/500 kHz	600/850 kHz
Weight (air)	29 kg	25 kg
Max. depth	600 m	300 m
Application	Archeology, UXO, SAR	Archeology, UXO

Tritech



	Starfish 450H
Frequencies	450 kHz
Weight (air)	700 g
Max. depth	100 m
Application	Sub-marine surveys

/ Doppler Velocity Log (DVL)









	Sprint-Nav	Sprint-Nav Mini	Syrinx
Roll/Pitch	0,01°	0,02°	±0,5°
Heading	0,05° / 0,04° / 0,02° / 0,01°	0,5°	-
Depth		4000 / 6000 m	
System integration	USV, ROV, AUV	USV, ROV, AUV, side- scan sonar	With Sprint INS on ROV, AUV, ship

LinkQuest



	NavQuest Micro DVL 600
Frequencies	600 kHz
Range	800 m
Resolution	± 1 mm/s or 1%
Weight (air)	2,9 kg

Marine instrumentation

The marine instrumentation range includes acoustic measurement solutions and equipment for deployment in oceanographic and hydrographic applications. Each measurement instrument is compatible with a variety of deployment systems: instrumented buoy, submerged structure or electric winch.

/ Multiparameters probes



	Mini SVS	Mini SVP
Features	Profiler	
GNSS	Ye	es es
Depth	500/6000 m	
Measures	SV, P, T	
Weight	1,4/2,4 kg	4/5 kg
Interface	USB/Wifi	



	AML-3	BaseX
Features	Pro	filer
GNSS	N	0
Depth	500/6000 m	100 m
Measures	SV, CT, P, Tur, Ph, Chl, Fluo, O ²	
Weight	1,6 kg	1,2 kg
Interface	RT, Logger, Dual Capability	-



	CTD 48M
Features	Profiler
GNSS	No
Depth	6000 m
Measures	Salinity, Sound velocity, Kappa 25 mS/cm, sigma
Weight	1,5 kg

/ Magnetometers





	Seaspy	Seaspy 2
Absolute precision	0,1	nT
Sensibility	0,0	l nT
Resolution	0,001 nT	
Survey range	18000 to 120000 nT	
Weight (air)	12 kg	

/ Electric winch & accessories





	CSW-7
Carriers	Ship
Sensors type	Side-scan sonar, Magnetometers, ROV
Engine	1 to 3HP
Power supply	12 to 48 VCD, 110 to 220 VAC

T-count



	Poulie compteuse
Dimensions	Ø 35,56cm
Sensors type	Side-scan sonar, ROV, CTD, sub-bottom profilers

OUR SENSORS & SOLUTIONS

ROV

Equipped with sensors, remotely piloted underwater drones operate at depths of up to 300 meters in a variety of complex contexts: scientific research, surveillance, inspection, etc.

/ ROV

MARINENAV



	Oceanus Pro	
Dimensions	60,5 x 41,8 x 27,9 cm	
Weight	17,91 Kg	
Max. speed	6 knots	
Engine	6 thrusters	
Depth	305 - 400 m	
Optical fiber option	Yes	
Auxiliary ports	3 : Ethernet / Manipulator / 12V / 24 VDC	
Power supply	Umbilical	

/ ROV accessories

MARINENAV



	Manipulator
Dimensions	36,8 x 4,8 mm
Arm aperture	90°
Grip force (tip)	100N
Grip force (middle)	125N
Depth	300m





	Orphie camera
Resolution	1080p / 20 to 60 fps
Depth	300 m (1000 m in option)
Dimensions	L 220 mm, Ø 90 mm
Weight (air)	2,3 kg
Material	Anodized aluminum

OUR SENSORS & SOLUTIONS

Software

The software we offer is compatible with our sensors and solutions, both for sale and rental. Training is provided by our manufacturer-approved technical support team.

/ Bathymetry and navigation

/ Sonar post-processing

QPS.



Qinsy, Qimera (bathymetry) and Qastor (navigation)
Survey planning, real-time acquisition and data processing.

exail



DELPH2D and 3D data acquisition for processing and analysis.

/ GNSS post-processing





SPSOData editing, processing, adjustment and creation.

/ Inertial post-processing





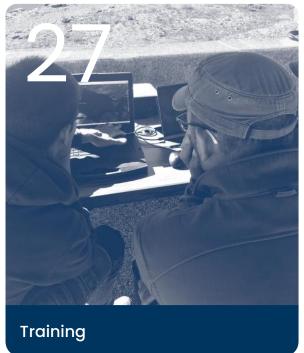


Qinertia / Janus Improves trajectory and data analysis of inertial headers.

Our services







OUR SERVICES

Demonstration

Would you like to discover the features and benefits of our solutions in real-life situations? Our sales and technical teams will come to you to organize a personalized demonstration.













Integration & Installation

Benefit from our expertise in combining several sensors and systems (inertial motion sensor, GNSS receiver, bathymetric sounder, Lidar, prism, marine camera, side scan sonar, oceanographic probe, etc.) to offer you a unique solution tailored to your needs. Our technical teams will come to your site to carry out the integration and installation.

EXAMPLES OF ACHIEVEMENTS

Lidar installation on an autonomous shuttle



Navette autonome à Nantes

Installation of ADCP, USBL and transponders on a dynamic cable



France Energies Marines et Eolink

Installation of an inertial unit on a barge in a quarry



COLAS

OUR SERVICES

Training

Thanks to a close partnership with all our suppliers, CADDEN can offer you a wide range of training courses on a wide variety of topics and applications. Developed by specialists in the field, our training modules are designed for professionals whose aim is to improve the skills of their teams: from the basics to the most advanced techniques.

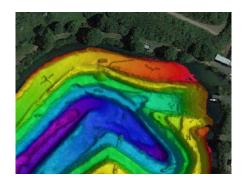






Training tailored to your applications

Our trainers have **advanced knowledge** of all our solutions, and will provide you with solutions tailored to your applications. Examples of training courses: understanding GNSS, getting to grips with a marine drone, carrying out a bathymetric survey (single-beam/multi-beam), training in bathymetry software, etc. Contact our sales team to define the training program best suited to your needs.







Experienced trainers and industry specialists

All our trainers are **experts** with a solid scientific and technical background. They are keen to share their technical expertise and experience. Our three experts are approved by our manufacturers to train you on our **GEOD®**, **OCEANS** and **ROBOTICS** solutions.



Dominique CHASSAGNE Technical Director

- Graduate of Intechmer
- Technical Director since 1999
- CADDEN Partner





Sylvain ANTOINESupport Engineer

- Graduate of ENSTA Bretagne
- Support Engineer & Trainer since 2012





Solana VIEL Support Engineer

- Graduate of ENSTA Bretagne
- Support Engineer & Trainer since 2023





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