

Royal Van der Leun has been involved in electrical engineering for over a century. We provide total solutions for the installation and integration of maritime systems. With 260 specialists world wide we design, engineer and install electrical systems on board in all maritime industries. Whether it's maintenance, testing, automation, parts delivery, repairs or drive technologies, we get the job done.



# ALL OVER THE WORLD.

## SCIO CONNECT

Scio, derived from the Latin word for "I know," is the overarching name for all Royal Van der Leun's innovative products and smart solutions. With Scio Connect, we offer various advanced systems that are transforming the maritime industry.

At Royal Van der Leun, we strive to work intelligently and efficiently. This not only saves costs but also valuable time and reduces errors and frustrations. Driven by our vision of "a world without cables," we work towards a common, future-proof goal.

We are always looking for smart solutions to transform the maritime industry. From this vision, we have developed various advanced systems to make your work more simple and productive. Below, we present our innovative products and their benefits.

## THE SMART SOFTWARE PLATFORM FOR ALL SYSTEMS ON BOARD.

Royal Van der Leun **ALL OVER THE WORLD**

# scio connect

## SCIO - VESSEL MANAGEMENT SYSTEM

Introducing the groundbreaking SCIO Vessel Management System, where all systems seamlessly integrate, including the AMS (Alarm Monitoring System), EMS (Energy Management System), and PMS (Power Management System), providing you with a comprehensive overview of your vessel.

Our AMS ensures efficient management of all onboard assets, minimizing downtime and saving costs. The EMS optimizes energy consumption, reducing operational expenses and environmental impact. The PMS ensures a reliable power supply, crucial for the smooth operation of all equipment onboard.

With advanced SCIO AI technology, we can recognize and analyze usage patterns, enhancing the reliability and efficiency of your system. Sometimes, a minor adjustment can lead to significant cost savings without compromising production.

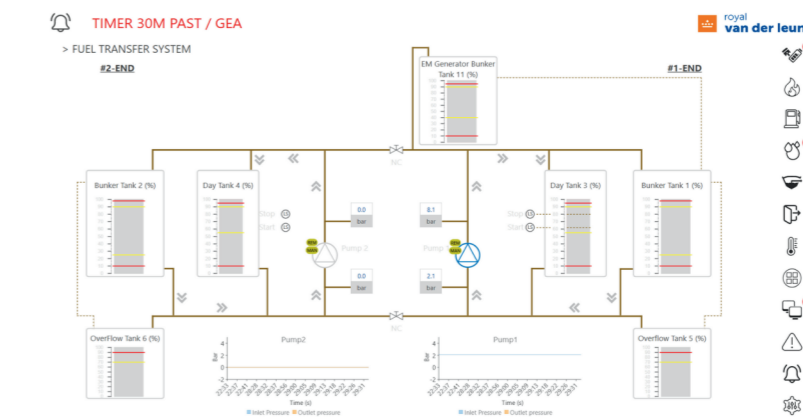
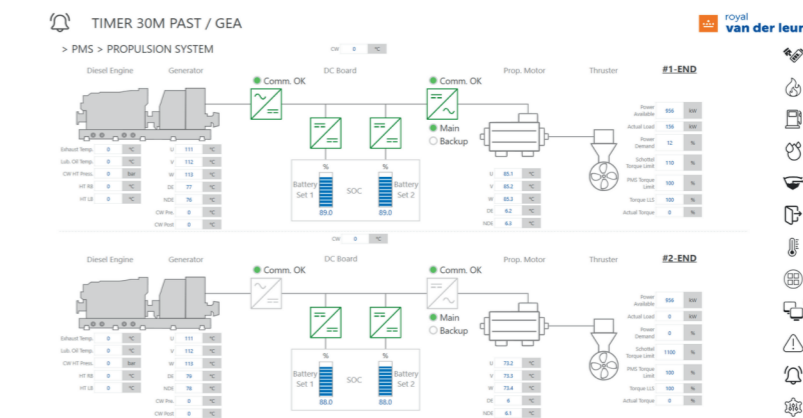
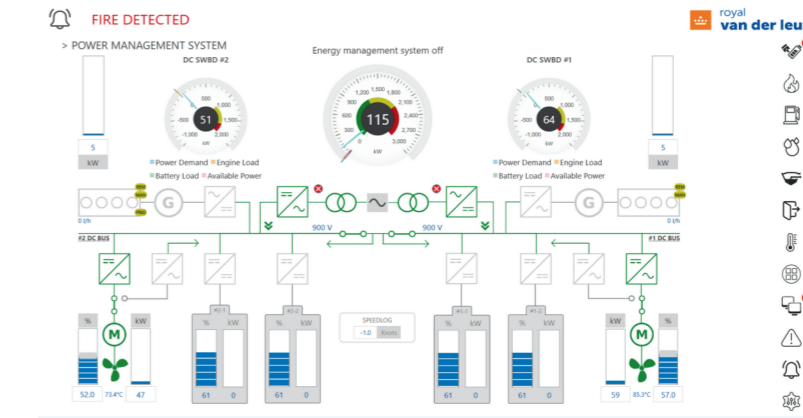
Imagine effortlessly communicating with your system, just like with Siri or your car. With the SCIO Vessel Management System, you have complete control over starting and stopping pumps and machines, all from one central system. This introduces a new level of convenience and efficiency into your daily operations.

In addition we can enhance the Scio Vessel Management System with other Smart Systems, developed within the Scio Connect-line.

- Scio - Smart Switchboard
- Scio - DC-Grid
- Scio - the Mobile App

**MORE INFORMATION?**

[royalvanderleun.com/en/innovation](https://royalvanderleun.com/en/innovation)



ID	PRIORITY	ALARM DESCRIPTION	START TIME	ACCEPT TIME	STATUS	SOURCE
01311	Emergency	FIRE DETECTED	2024-05-14 11:49:04	2024-06-05 16:24:58	Alarm	AMS
01445	Alarm	Energy management system #1 First selected engine is not available	2024-06-10 10:38:44	2024-06-10 11:06:06	Accepted	DCS
01444	Alarm	Energy management system #1 Second selected engine is not available	2024-06-10 10:38:44	2024-06-10 11:06:06	Accepted	DCS
01892	Alarm	IO network switch MSB 2 PMS (01.2051-3060) Offline	2024-06-10 10:35:08	2024-06-10 11:04:34	Accepted	DCS
01890	Alarm	IO network switch MSB 1 PMS (01.2051-3060) Power failure 1	2024-06-10 10:35:08	2024-06-10 11:04:34	Accepted	DCS
01889	Alarm	IO network switch MSB 1 PMS (01.2051-3016) Offline	2024-06-10 10:35:08	2024-06-10 11:04:34	Accepted	DCS
01868	Alarm	IO network switch MSB 1 PMS (01.2001-3016) Power failure 2	2024-06-10 10:35:08	2024-06-10 11:04:34	Accepted	DCS
01867	Alarm	IO network switch MSB 1 PMS (01.2001-3016) Power failure 1	2024-06-10 10:35:08	2024-06-10 11:04:34	Accepted	DCS
01848	Alarm	HMI network switch AMS Wheelhouse (S0.2031) Offline	2024-06-10 10:35:08	2024-06-10 11:04:34	Accepted	DCS
01845	Alarm	HMI network switch AMS Wheelhouse (S0.2031) Power failure 2	2024-06-10 10:35:08	2024-06-10 11:04:34	Accepted	DCS
01844	Alarm	HMI network switch AMS Wheelhouse (S0.2031) Power failure 1	2024-06-10 10:35:08	2024-06-10 10:40:36	Accepted	DCS
01811	Alarm	IO network switch AMS Engine room (S0.2001) Offline	2024-06-10 10:35:08	2024-06-10 10:40:36	Accepted	DCS
01830	Alarm	IO network switch AMS Engine room (S0.2001) Power failure 2	2024-06-10 10:35:08	2024-06-10 10:40:36	Accepted	DCS
01829	Alarm	IO network switch AMS Engine room (S0.2001) Power failure 1	2024-06-10 10:35:08	2024-06-10 10:40:36	Accepted	DCS
01816	Alarm	IO network switch DCS Engine room (S0.2001) Offline	2024-06-10 10:35:08	2024-06-10 10:40:36	Accepted	DCS
01815	Alarm	IO network switch DCS Engine room (S0.2001) Power failure 2	2024-06-10 10:35:08	2024-06-10 10:40:36	Accepted	DCS
01814	Alarm	IO network switch DCS Engine room (S0.2001) Power failure 1	2024-06-10 10:35:08	2024-06-10 10:40:36	Accepted	DCS
01801	Alarm	IO network switch AMS DCS wheelhouse (S0.2031) Offline	2024-06-10 10:35:08	2024-06-10 10:40:36	Accepted	DCS
01800	Alarm	IO network switch AMS DCS wheelhouse (S0.2031) Power failure 2	2024-06-10 10:35:08	2024-06-10 10:40:36	Accepted	DCS

### Energy Management System - Scio EMS

The system is used to monitor, control and optimise the performance of installed energy sources such as batteries and generators. The EMS allows you to achieve optimum efficiency with your drive system and to make a significant contribution to a cleaner environment.

- Optimizes energy consumption to reduce operational expenses and environmental impact.
- Analyzes usage patterns to identify opportunities for efficiency improvements.

### Power Management System - Scio PMS

All vessels need power to sail. This can come from different sources. Our PMS gives a clear overview and enables you to control the source and flow of power that drives your vessel. The PMS ensures a reliable power supply, crucial for the smooth operation of all equipment onboard.

- Ensures a reliable power supply for smooth operation of all onboard equipment.
- Monitors and regulates power distribution to prevent disruptions.

### Decentralised Control System - Scio DCS

The Decentralised Control System gives the operator a clear overview of the complete auxiliary systems on board of your vessel excising of the pumps for example; tanks and their levels, the flow of fuel, and the pressure values before and after a pump.

- Clear and simple overview of your system
- Direct control of the pumps on board

### Alarm Monitoring System - Scio AMS

To reduce downtime to a minimum we want to monitor all variables as close as possible. The AMS measures everything inside a vessel and notifies directly when values reach certain levels. Our AMS gives a clear overview and enables you to swiftly and accurately take action.

- Efficiently manages onboard assets to minimize downtime and reduce costs.
- Alerts users to potential issues for proactive maintenance and troubleshooting.

## SCIO - SMART SWITCHBOARD

Discover the future of electrical engineering with Royal Van der Leun's Smart Switchboard. This innovative solution integrates advanced technologies such as smart starters, soft starters, and frequency converters.

The HMI screen replaces traditional meters and buttons, allowing your equipment to be controlled even more effectively. Thanks to AI applications, we can calculate and plan maintenance, and with the possibility of remote reading and control, we are taking a big step towards smart autonomous systems.



## SCIO - THE APP

This virtual assistant is indispensable for anyone working daily with maritime switchboards. With the Scio app on your phone or tablet, you can scan any component in your switchboard to find the part number or view the current drawing of a component.

The app will be used for the first time on the largest autonomously sailing, 3D-printed ferry that will transport athletes and visitors in Paris.

### Benefits of the Scio App

- User-friendly: Intuitive interface that is easy to use even without technical knowledge.
- Productivity-enhancing: Speeds up electrical work and maintenance processes on board.
- Quick access to data: Automatic connection to switchboards for rapid identification of components and consultation of technical drawings.
- Minimizes downtime: Accelerates fault detection and repair processes with direct access to part numbers and component datasheets.
- Real-time synchronization: Capability for semi-real-time engineering synchronization, so adjustments are immediately processed in the technical drawings

The virtual link to your hardware



## BENEFITS

- All developments based on more than 100 years experience
- Enhances convenience and efficiency in daily operations
- Enables better decision-making for cost-effective and sustainable maritime operation
- Standardized options with flexibility to adapt to your needs
- Continuous insights and remote management
- Built for all applications and all environments
- Continuous reduction of costs
- 24/7 support

## TRY A DEMO

Are you interested in a demo at your office? Feel free to contact us.

We would be delighted to tell you more about our future proof solutions and show you our Scio Connect.



Get in touch

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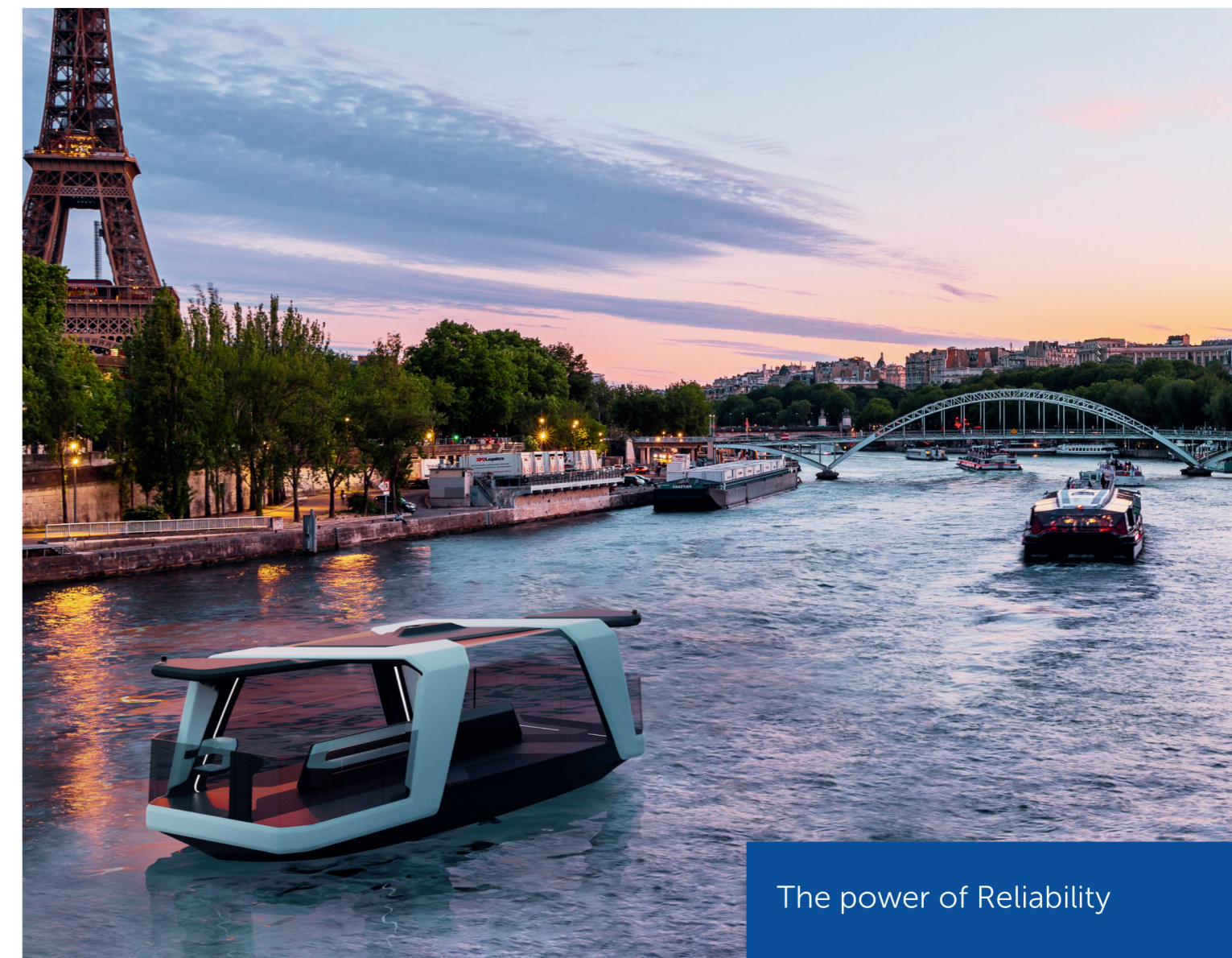
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# ROYAL VAN DER LEUN FUTURE PROOF SOLUTIONS



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