

wfnstrategies

2021

year in review

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DIRECTORY

Managing Director

This year, 2021, marked WFN Strategies' 20th Anniversary.

When Peg and I founded our fledgling company in 2001 with little more than a month's severance we never envisioned that two decades later, WFN would be such a thriving submarine cable consultancy, with staff across the Americas, AustralAsia, and the EMEA, supporting projects on every continent. Nor could we ever envisage working through a global pandemic.

In 2021, we accomplished despite difficult conditions 14 projects for 7 commercial, governmental, and offshore energy companies in 3 regions of the world – a year-upon-year uptick of some 20% overall business performance. Thanks to the support of our incredible Clients – new and old – we remain confident about a future of continued growth and exciting new opportunities.

Thanks to the unrelenting professionalism of our WFN family of Consultants – past and present – we would not have reached this important milestone, nor survived COVID-19, without their determination, hard work and agility.

We are the sum of our parts, and we celebrate our incredible team and Client partners.

Looking ahead to 2022, we are moving in new technological directions for a number of key products, and we are emboldened about the opportunities ahead.

Happy 20th Anniversary, WFN!



WAYNE NIELSEN



Projects Director

WFN as many companies was impacted by COVID-19, but unlike many companies WFN was able to adapt and utilize more agile processes to compensate for the challenges presented by COVID-19 guidelines and restrictions.

In 2021, we were extremely busy on six project implementations providing Client Representative services for marine route surveys, installations, as well as shore end work that included the cable landing, outside plant and ground bed. Each project required one or two Client Representatives that traveled on vessels or were on site during work. The purpose of these representatives was to observe and report to the Client all activities and specifically any activity that might jeopardize or threaten the Client's project.

The logistics behind supporting a typical project includes international air travel and lodging. With COVID-19, this meant the addition of numerous new rules and restrictions from country-to-country, as well as COVID-19 testing and quarantining at site or station. WFN organized together an internal support team and worked together to stay focused, managing everything as quickly and simply as possible. This approach allowed us to fulfill every service request; we did not miss any Client project implementation cycle.

COVID-19 also impacted and shortened time available to work projects, which meant we sometimes had to rush our production of the work product. This in turn could have impacted our quality of work, but because we have a strong quality assurance program and ability to continually assess areas for improvements, we were able to minimize the impact of time constraints on various projects.

Lastly, WFN conducted an in-person strategy session called Meetings Week in our offices in November, which was the first time we had been together as a company in almost two years, and during which we reviewed the year and discussed areas for improvement.

Like always, we will be working in 2022 to do that much better on managing various diverse projects as we always strive to do.



HECTOR HERNANDEZ

REPORTS' REPOORTS

Quality & Fulfillment Director



The past year has offered unique challenges and opportunities to and for WFN's management team. The challenges from by the pandemic lockdowns, both local and international, put the WFN Quality Management System (QMS) and Information Security Program (ISP) through an unprecedented series of tests, some of which we were prepared for, some we needed to adapt to in real time. The three areas where WFN has adapted, combated, and exceeded the expectations of our quality systems and our customers' expectations are:

Pandemic Office Closures - In the spring of 2020, Virginia, where WFN is headquartered, decreed businesses were to adopt immediate and dramatic new routines to combat the spread of COVID-19. One action was to close operations at high traffic facilities and encourage remote work. Out of caution, WFN closed the head office and switched over to full time remote work for all personnel. The WFN QMS has procedures set in place for remote work, and all quality management functions continued as set out in the QMS.

Report Delivery, New Hires & Customer Satisfaction - Through the end of 2020 and into 2021, WFN accomplished implementation oversight of a transpacific system, feasibility studies for four

new major systems, and provided support for the extension of another major regional system. Throughout the various reporting efforts, WFN produced over 2,000 pages of high quality reporting, supported two new technical and business engineers, as well as a new Technical Director. In 2021, WFN's ambitious standards of report writing, and technical review were rated an average of 4.8 of 5 in Client satisfaction.

Client Representation - WFN regularly supports its customers with in-field Client representation, and this last year saw more than 100% increase in Client Representatives in the field. To accommodate the influx of work, the WFN Directorate hired a new Construction & Marine Coordinator to manage the personnel, and coordinate needs with Clients. As such, WFN has hired a highly qualified Marine Coordinator, who has already taken over regular Client Representative operations and Client relations.

I am pleased to report that our ISO-based quality and information security systems have surely passed muster this unprecedented year and are in excellent position for expansion in 2022 and beyond.

KRISTIAN NIELSEN

Technical Director



In 2021, WFN provided technical support to multiple projects. This included field representation on marine lay and shore end construction on new cable systems along with engineering reviews for expansion of existing systems. Considerable time and effort were placed into developing two feasibility studies for projects supporting an international cable system of 4300km and a 1500km domestic telecommunications and Oil & Gas system. The feasibility studies were anchored by

defining a conceptual design on the front end and completing a commercial, technical, permitting and project delivery evaluation to allow the projects to be submitted to governance for approval to continue.

In working the feasibility studies, it has been found that developing an upfront set of technical and design elements which describe the key criteria of the proposed system creates a path to success. Through these elements, all parties have a common base to work from and when changes are identified, it supports a management of change process to ensure all parties are aware. By doing so, it allows work to proceed in parallel across the area evaluation areas whereas without the upfront definition, too much variability is established.

Looking forward into 2022, work will

be done to update reference information such as system pricing and technology options to allow for a more comprehensive evaluation process. In addition, WFN will continue to evaluate each project technically to ensure the proposed and delivered work is in line with customer needs and expectations as each customer has a set of unique experiences and capabilities along with distinct corporate process.

By aligning the feasibility studies and technical support to each organization, WFN can continue to provide world class deliverables that meet or exceed customer requirements to allow customers to move forward with confidence in telecommunication projects.

GREG OTTO

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HIGHLIGHT

20TH ANNIVERSARY

In March, WFN celebrated its 20th anniversary, becoming one of the oldest and most experienced submarine cable consultancies in this global space - thanks in no small part to the unrelenting professionalism, determination, hard work and agility of our WFN family of Consultants.



THE CLIMATE PLEDGE

In April, Earth Day 2021, WFN joined The Climate Pledge alongside Amazon, Verizon and over 100 other companies from across dozens of industries. The submarine telecoms industry is due for a new change, one that is renewable and sustainable. From vessels burning fuel to lay cable, to powering the data centers those cables connect to, the telecommunications industry is replete with opportunities for positive change. WFN proposes to not only reach carbon neutral operations by 2040 but also become the industry champions for powering submarine cable systems with renewable sources. WFN's unique position within this industry allows us to act as Green Evangelists with system suppliers, developers, and everyone within the supply chain.

OFFICE UPGRADE

In September, WFN accomplished an office makeover of its corporate headquarters in Sterling, Virginia, including enhancing its video conferencing capabilities. WFN had previously returned to in-office internal meetings in 3Q 2020 followed by external Client and vendor meetings in accordance with CDC guidelines in 2Q 2021.



2021 CORPORATE FUN RUN

In July, WFN personnel ran a 5k together in the Northern Virginia Corporate Fun Run



AWARDS

WFN Strategies has been selected thirteen years in a row for the Best of Washington Awards for Telecommunications Consultancy and qualified for the 2021 Washington Business Hall of Fame.

HTS

RWAMAGANA LEADERSHIP SCHOOL

Peg and Wayne are in their 3rd year of sponsoring a young woman at the Rwamagana Leaders' School in Rwanda, their 2nd such student over nine years. They are also a sponsor of the new library facility at the school. Thankfully, the school was able to make changes that allowed the program to stay open in spite of the pandemic.



Certifications



ISO 9001:2015

WFN accomplished ISO 2001:2015 Quality Management recertification, being the only consultancy in the industry to do so.



ISO 14001:2015

WFN accomplished ISO 14001:2015 Environmental Management certification, becoming the first consultancy in the industry to do so.



ISO 27001:2013

WFN accomplished ISO 27001:2013 Information Security Management recertification, being the only consultancy in the industry to do so.

SUBJECT MATTER EXPERTISE

More than 25 subject matter expert Consultants and in-field Client Representatives accomplished WFN telecom projects in 2021. In January, WFN appointed Hector Hernandez as Projects Director, responsible for our Project Management Organization, and Kristian Nielsen as Quality & Fulfillment Director, responsible for maintaining our ISO system and corporate quality, as well as Client satisfaction.

WFN appointed industry veteran Greg Otto as Offshore Energy Manager who then became Technical Director in August, responsible for provision of technical products.

In November, WFN appointed Glenn Hovermale as Construction & Marine Coordinator, responsible for the provision of Client Representation in submarine cable design, survey, manufacture, installation, and commissioning. WFN appointed Greg Reinecke as GIS Products Manager, responsible for the provision and management of geospatial products, such as PM 2.0 Dashboard and related submarine cables map.



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BUSINESS

WFN Strategies is an industry-leading consultancy specializing in the planning, procurement, and implementation of submarine cable systems. WFN Strategies is an industry-leading consultancy specializing in the planning, procurement, and implementation of submarine cable systems. WFN has served the telecommunications industry for more than 20 years and possesses accredited ISO 9001:2015 Quality, ISO 14001:2015 Environmental and ISO 27001:2013 Information Security management systems for the implementation of submarine cable systems for commercial, governmental, and offshore energy companies throughout the world. Despite the difficulties of the pandemic, in 2021, we accomplished 14 projects for 7 commercial, governmental, and offshore energy companies in 3 regions of the world.



OUR MISSION

To exceed customer expectations by solving complex telecom network design and implementation problems for commercial, governmental, and offshore energy companies while maintaining a positive commitment to social impact and environment.



OUR VISION

At WFN, we believe in collaboration, viewing our customers and employees as partners in everything we do. We stand for innovation, adhering to ideas that work and constantly seeking to improve those that do not. We're proud of our independence, it allows us to remain vendor-neutral and to truly stand on the side of our customers. We strive for excellence on every project, every interaction, every time.



SUSTAINABILITY

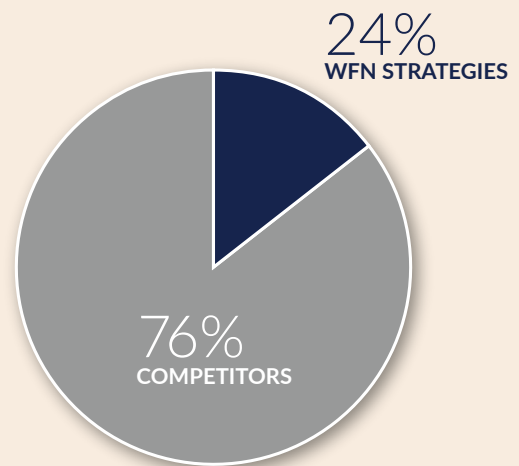
Our commitment to sustainability spans two decades, and we recently adopted a roadmap to reduce Scope 1, 2, and 3 carbon emissions in line with climate science, and to achieve net-zero carbon emissions by 2040. WFN advocates for reduced emissions through renewable energy alternatives for Clients' submarine cables.

WFN is a Partner to the SubOptic Foundation's Sustainable Subsea Networks initiative.

MANAGEMENT'S ANALYSIS

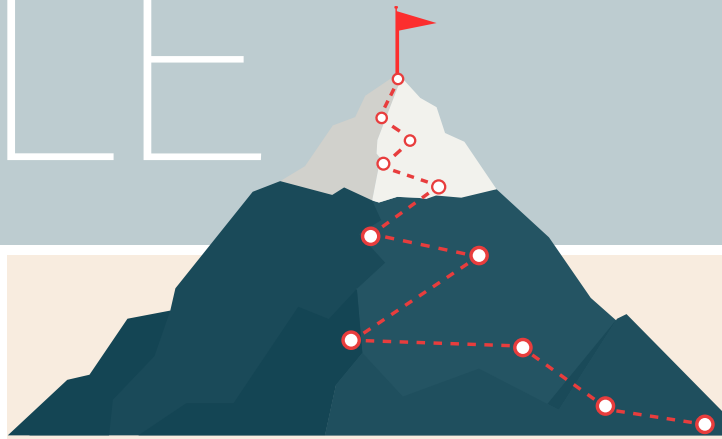
- WFN accomplished 14 projects for 9 Clients, of which 5 were new.
- WFN accomplished ISO 2001:2015 Quality and ISO 27001:2013 Information Security recertifications. WFN accomplished ISO 14001:2015 Environmental management system certification, becoming the first consultancy in the industry to do so.
- WFN enhanced and developed dashboards for PM 2.0 submarine system implementation process.
- WFN accomplished Master Service Agreements (MSAs) with two new Clients in 2021.
- WFN realized 5 times increase in booked sales from 2020 for projects impacting 2021 and beyond, as well as 20% growth in overall business performance this year. Of the nine or more consultancies in the submarine cable space, WFN's 2021 market share was decidedly significant.

2021 MARKET SHARE



- Our expectations and plans for WFN's growth continue to be robust and optimistic about the future.

S PROFILE

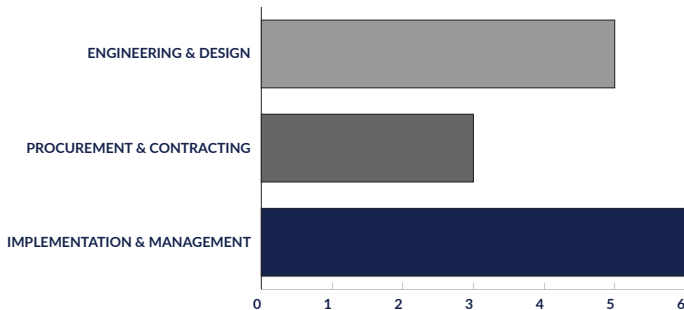


COMPANY SERVICES

WFN delivers Engineering & Design, Procurement & Contracting, and Implementation & Management services for submarine cable systems, and in 2021, a total of 14 efforts were accomplished, detailed as follows:

- **Engineering & Design** — 5 submarine cable projects, consisting of cable route engineering, desktop study & site visits, and/or system engineering & design services.
- **Procurement & Contracting** — 3 submarine cable projects, consisting of RFP development, contract adjudication and negotiation, and/or due diligence and system valuation services.
- **Implementation & Management** — 6 submarine cable projects, consisting of Client Representation, system commissioning, and/or maintenance planning services.

BY PROJECT TYPE — INSTANCE



In addition, Clients utilized WFN's web-based project management and quality control system, PM 2.0, on 6 submarine cable projects.

NEW PRODUCT PLANS AND FUTURE ACTIVITIES

PM 2.0 - VERSION 2022

- Addition of live S Curve
- Addition of system diagram to DPRs
- Addition of activity video
- Addition of data variable sliders
- Creation of Mobile App
- Implementation of 3D RPL pathing

ISO 45001:2018 OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEMS

In 2022, WFN plans to become accredited to ISO's safety management system, which will strengthen our commitment and administration of various infield activities associated with submarine cable implementation.

and now for something completely different...

NIELSEN FAMILY DANISH GLØGG

(To see one through a cold winter night)

- 4 bottles Port wine
- 1 Bottle Red wine
- Add whole cardamom, cinnamon, clove, sliced almonds and diced dried fruit, and sweeten with sugar to taste.

Warm slowly, then add ½ bottle of Danish or Norwegian Aquavit and light (briefly) before serving. Skål!



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