

# Our model

CN's unique business model centres on delivering precision and predictability in an imprecise and unpredictable world. Our success in precision-scheduled railroading has created a highly competitive transportation offering that provides durable value to shippers and investors alike. A critical long-term contributor to that value is our passion to improve continuously in our execution of the CN model.

# The CN operating model: key to competitiveness and growth



A key element of CN's precision operating model is the drive to improve continuously in its execution. In 2008, we intensified our focus on a critical measure of rail performance: velocity. Achieving maximum car and train velocity enables us to improve service and lower costs at the same time.

With CN's precision railroading operating model, we have proven we can do what others in the industry always said was impossible: We can dramatically improve service and be the low-cost provider at the same time. And, significant from a business and shareholder perspective, improved service quality enables us to price in a way that reflects the higher value we can provide shippers.

## **Improving our velocity: faster is better**

Car velocity and average train speed are key measures – and drivers – of asset productivity. For a business like ours, velocity improvement is a major opportunity for the bottom line: Greater velocity enables us to improve service quality while moving more loads with the same assets.

In 2008, CN successfully completed a \$100 million reconfiguration of its Johnston Yard switching facility in Memphis, Tennessee, a key hub in the North American network.



Our investments in longer sidings and improved signal, track maintenance and yard management technologies over the past few years have allowed us to significantly improve the efficiency of our train operations. We continue to implement CN's SmartYard concept, now in place at three of our four hump yards – MacMillan (Toronto), Symington (Winnipeg) and Johnston (Memphis) – to reduce dwell time and improve yard productivity.

Safety performance has a direct impact on velocity as well. CN tests its track at a far higher rate than what is required by industry regulators, using a variety of technologies that include state-of-the-art track geometry systems and ultrasonic rail flaw detection equipment. In addition, CN is a leader in the deployment of advanced detector technologies to monitor the condition of locomotives and freight cars.

Our efforts made a positive impact in 2008, contributing to a 30 per cent year-over-year reduction in TSB-reportable train accidents, and an eight per cent improvement in FRA-reportable accidents.

In 2008, we intensified our efforts to improve car velocity and average through train speed, creating a quality focus team to study the issues that affect performance, including train separations, locomotive failures and signal light problems, and implement actions to better address them. The sum total of this and other initiatives has delivered eye-opening results: Over the last four months of 2008, we increased car velocity by 20.37 miles per day and average through train speed by 2.68 mph. This kind of improvement has a direct impact on CN's asset utilization and service quality.

CN's SmartYard, now in operation in three of four of its hump yards, provides advanced, user-friendly tools that aid train forecasting, track assignment and motive power planning, activities critical to network performance.



Optimizing power, enhancing the network, focusing on execution – there is a wealth of opportunities to continue to improve upon North America's most efficient railroad.

### **Enhancing asset efficiency with distributed power**

Operating longer trains increases asset efficiency and productivity. To run longer trains, you need longer sidings, which we've built across the network. We're now increasing our deployment of distributed power (DP) technology, the use of automated locomotives in the middle of trains, to optimize power.

### **Precision railroading: always room for improvement**

Complexity, once used in the case against precision railroading, is actually at the heart of what's most exciting about it – because of all the interrelated elements that affect performance, there is an almost endless potential to improve. We can and will get better and better at executing the model.