

## LEADERSHIP CASE STUDY



Laurel Castiglione

# Developing a production viable electric car turned out to be one of the most complex engineering jobs of the 20th century

CASE STUDY NO. 1302

**Laurel Castiglione's achievements include driving advancements for the world's top automaker and powering staff collaboration for one of the nation's largest utilities.**

A self-described "totally Type A" personality, Laurel is passionate about almost everything she does. She's an exercise enthusiast who has completed one marathon and is training for another.

She often rises at 4:30AM to put in an hour of Body Pump™ or Spinning® (indoor cycling) before heading off to work. "I have lots of enthusiasm for life," she says. "I like to jump out of bed and take on the world."

Her passion and energy earned her a position as a technical specifications writer for GM in 1976. "I was the first woman at Chevrolet Engineering to start out as a non-secretary."

Over the years her colleagues recognized Laurel's skills at resolving complex problems.

In the early 90s she was recruited by GM's new Advanced Technology Vehicle Group as they embarked on an exciting new project.

It was a difficult time for GM, as the company faced slumping sales, increasing competition in the global marketplace and stringent new clean-air mandates.

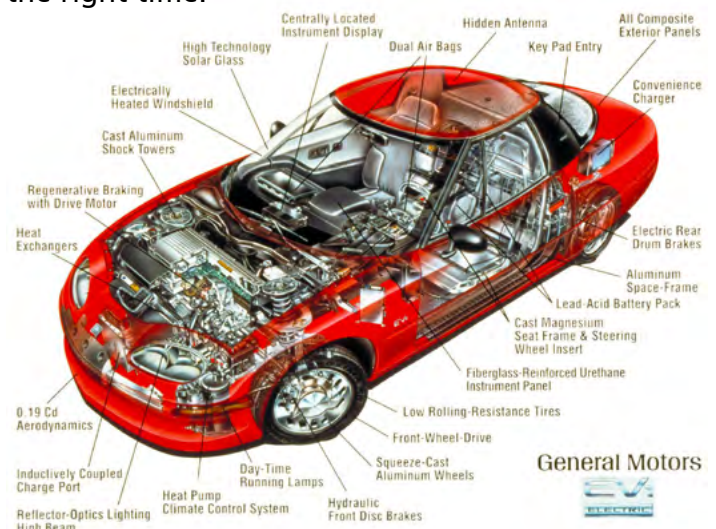
GM officials were counting on engineering innovation to overcome those challenges. The company had begun working on a zero-emissions car.

The project was top secret, since automakers at the time were actively opposing strict new laws designed to reduce carbon emissions. Even as it fought to have the new standards overturned, it quietly began to develop vehicles that ran on alternate fuels, including propane, compressed natural gas, hybrids and electricity.

Laurel led the process to integrate with GM's systems for the EV-1 Electric Vehicle project.

“ My team was ultimately responsible for making the 'invention on demand' solutions come to fruition.

We established project management to integrate business processes and systems to get the right parts to the right place at the right time. ”



Featured Client:  
**Laurel Castiglione**  
CastiglioneEnterprises.com

## THE CHALLENGE

### Finding New Ways of Thinking and Planning

#### Compression Planning® helped GM solve one of the century's top engineering challenges

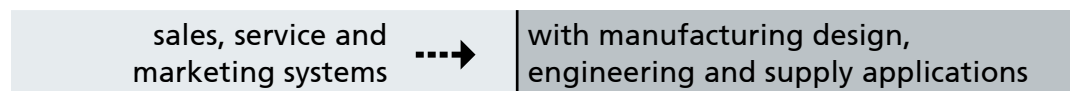
To meet the challenge, GM assembled a team of automotive engineers, rocket scientists, marketers and others who worked to build the vehicle from the ground up. "It seemed the only thing we could buy was the cup holder," Laurel said. "Everything else was innovation."

Technology wasn't the only challenge for the EV-1 team. Creating the first mass-produced electric vehicle of the modern era required new ways of thinking and planning.

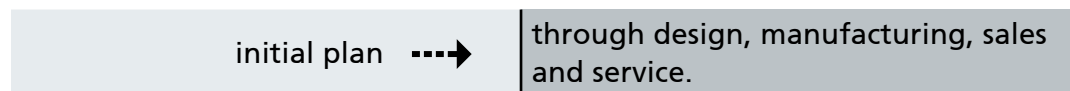
The chief engineer of the EV-1 saw his role as the architect of a culture change at GM. Engaging employees and creating an atmosphere of collaboration was vital to the success of the project.

To support the technological and cultural changes, Ms. Castiglione was charged with merging diverse applications from GM's North American Operations, Saturn, Delco, Delphi and Hughes Aircraft.

This meant integrating:



needed for all aspects of the vehicle lifecycle from:



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**"Creating the first mass-produced electric vehicle of the modern era required new ways of thinking and planning."**



## THE SOLUTION

### **GM's EV-1 Team used The McNellis Compression Planning® System to bring about a culture change and integrate systems for the project**

The 7-Step Visual Planning System™—known as Compression Planning® (CP)—enabled GM to get the most out of the unusual collection of experts it brought together to create the new kind of vehicle.

“I’ve always been interested in learning new ways to do things,” Laurel said, “but I wasn’t excited about CP until I saw how it worked.”

The process was magical. We used it as a vehicle to show people that we were all in this together. This System enables people to talk in a way that allows everyone to be heard. It’s a great tool to bring people together.

**More than 80 EV-1 team members were trained to use CP techniques to clarify their mission, streamline planning efforts and develop practical action plans.**

The organized approach empowered our team. It helped us advance the EV-1 project from the portfolio planning, design, engineering, supply chain and manufacturing phases through sales, service and marketing.

We used the McNellis System when I became the Information Officer for North American Pre-Production Operations. **I was responsible for the IT operations of over 55 systems at 11 facilities in the U.S.**

I used CP to dramatically improve relationships between business and IT. Sessions were focused on identifying and quantifying much needed improvements to the IT infrastructure and performance of tools and systems.

Compression Planning helped to build trust. We used that trust as the foundation of a global study that resulted in **identifying more than \$50 million dollars in annual cost reductions.**

Later, we used the CP approach when I was tapped to globalize GM’s corporate Intranet, a common portal infrastructure for over 300,000 global employees and business partners.

**“Compression Planning® helped to build trust. We used that trust as the foundation of a global study that resulted in identification of more than \$50 million dollars in annual cost reductions.”**

*Laurel Castiglione*

The project involved integrating information and tools to access employee services and perform work.

This created a challenge, since every department spoke a unique language and often exemplified a collective personality aligned with their professional challenges.

The Compression Planning System allowed us to travel the world and use a consistent design to gather information. The result was we uncovered important content to focus on and gained consensus within countries and regions.

We used this data to design a common website experience for GM employees in over 60 countries.

Getting the design right allowed us to migrate to a common set of templates across **35 countries in 18 months.**

The speed of success surprised us all. ”

## The Process

### Accelerating Ideas into Action

#### About Compression Planning®:

“Compression Planning® begins with the facilitator posting relevant background material on a storyboard,” Laurel states.

After reviewing the background material group members are invited to share their opinions.

As they articulate their ideas they're able to clarify what they consider most important.

Ideas are then recorded and posted on the storyboards for everyone to see.

This makes it easy to filter and arrange them into logical categories.

Once people see their words in print they know their concerns have been heard.

This allows the group to relax, open up and listen to what others have to say.

#### In the EV-1 and Intranet Projects:

After the ideas were organized each group developed a statement of purpose.

For example, *the purpose of the Intranet project was to use all available resources to create a plan that would dramatically improve the corporate Intranet over the next 90 days.*

Next the group broke the project into pieces, identified priority items and defined success metrics.

We were then able to list the top 10 things we had to do which provided a visual representation of the priorities.”

**“This important step differentiates The McNellis Compression Planning® System from other techniques.”**



## Contact us

discover@compressionplanning.com

## The Benefits:

### Simple Solutions to Complex Problems

Laurel Castiglione is a recognized thought leader in digital communication and collaboration. Her ability to find simple solutions to complex challenges has been a key factor in her success.

She considers Compression Planning® an essential tool in dealing with professional and personal challenges.

Most recently, Laurel used CP to define her priorities, evaluate her career options, and made the decision to establish her own business.

#### Lessons Learned:

**Compression Planning® is transferrable across topics and industries.**

**This System equips you to quickly work through complex issues.**

**Extremely challenging projects can be completed ON TIME and ON BUDGET.**

~ Laurel Castiglione

**Clients, like Ms. Castiglione, count on this proven system to accelerate their ideas into action.**



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