

# INSPIRING NATURE | INSPIRED TECHNO

BIOMIMICRY & TRANSPORT



Interactive & bilingual exhibition



1,300-2,000 ft<sup>2</sup>



Families & general public



Educational program

## WHAT IF WE USED THE GENIUS OF NATURE?

Biomimicry helps us reconnect with our innate need to live in harmony with nature. The word comes from "bios" for life and "mimesis" for imitation. This methodology relies on the observation of shapes, processes and systems to imitate nature's genius and offer innovative solutions.

WHEN DREAMERS, CREATORS AND RESEARCHERS OBSERVE NATURE AND GET INSPIRED BY IT, PROMISING CONCEPTS, FASCINATING IDEAS AND INSPIRING PROJECTS COME TO LIFE.

### GO ON AND MEET

the living world and discover technological innovations and their source of inspiration from nature.

### LET YOURSELF BE CARRIED

by inspiring modes of travel.

### RECONNECT

with our natural allies that have a lot to teach us.

### BE IMPRESSED

by innovative technologies inspired from performing principles developed by nature.

### HAVE FUN

experimenting solutions present in nature with interactive multimedia and mechanical games.

### DISCOVER

 how inspiration from:

- Birds' light bones lead to optimized vehicle structures;
- Geckos inspire the development of adhesives optimized for vertical use;
- Kingfishers' beak shape brings ways to considerably lower the noise made by a TGV.

### INSPIRE YOURSELF

from nature and create your own ingenious mode of travel.



## AN EFFECTIVE NATURE-TECHNO ALLIANCE!

A unique chance to discover up to thirty natural specimens and technological objects, all presented in a dynamic way through ten or so principles found in nature that were applied to transports.

WHETHER IT'S AT LARGE OR SMALL SCALE, NATURE IS AN ENDLESS SOURCE OF **INSPIRATION** FOR SCIENTISTS AND DESIGNERS. HERE ARE A FEW EXAMPLES:



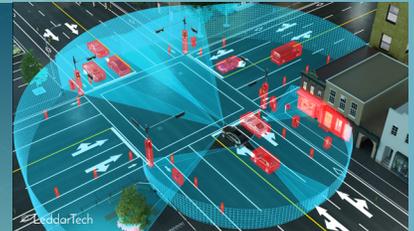
The muscles of squids, jellyfish and octopuses propel water with force behind them, resulting in a forward movement. This is the principle used by personal watercrafts to propel themselves.



The many legs and suckers of caterpillars allow them to distribute their weight all along their body, enabling them to go over obstacles without falling. The sprocket wheel tract system used by Joseph Armand Bombardier for his off-road vehicles sure took the best from caterpillars!



Crickets that travel in big groups emit signals that allow them avoid collisions; a signal system similar to that is used by intelligent cars.



The structure of the fireflies' abdomen scales, when reproduced on the surface of LED bulbs, increases the efficiency of their lighting by reducing the loss of luminosity.



AND WHAT ABOUT VELCRO, SELF-CLEANING FILMS, THE HONEYCOMBED STRUCTURE OF CERTAIN MATERIALS OR THE ULTRA PERFORMING ADHESIVES? **ALL INSPIRED BY NATURE!**

An accessible and popularized content created thanks to the implication of over forty participants coming from five university laboratories, two museum institutions and eight technological enterprises that have actively collaborated with the design team.

CONCEPTION



COLLABORATION



CONTRIBUTION



FOR INFORMATION

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