Use of multi skilled research for new materials and processes

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President & CEO of Airbus Helicopters

Constraints of Aviation Innovation

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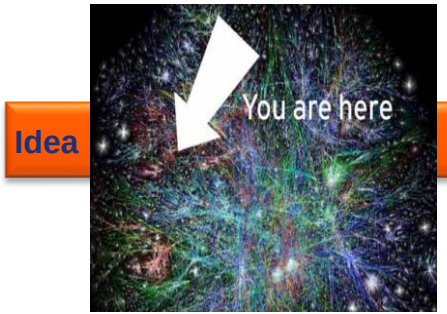
From Idea to Product, an obstructed valley…



Complexity

Death Valley

Idea → **Product**

Customer Value

- Challenge the complexity with added value for Customers

Agility

- Be agile to reach still the changing market

Simplicity

- Encourage simplicity to reach the target faster

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What is the the key to success?

Diversity

Organisational Setup

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Innovation and disruptive ideas - need smart organizations

Silo

Plateau

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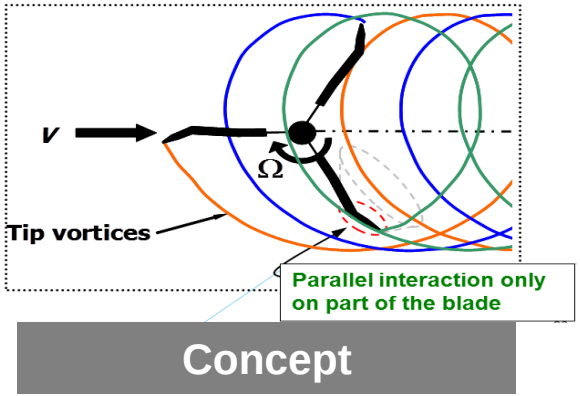
Example Blue Edge ™



Concept

Prototype

Product

Fuel consumption reduction 15 to 20%
Acoustic footprint reduced by half

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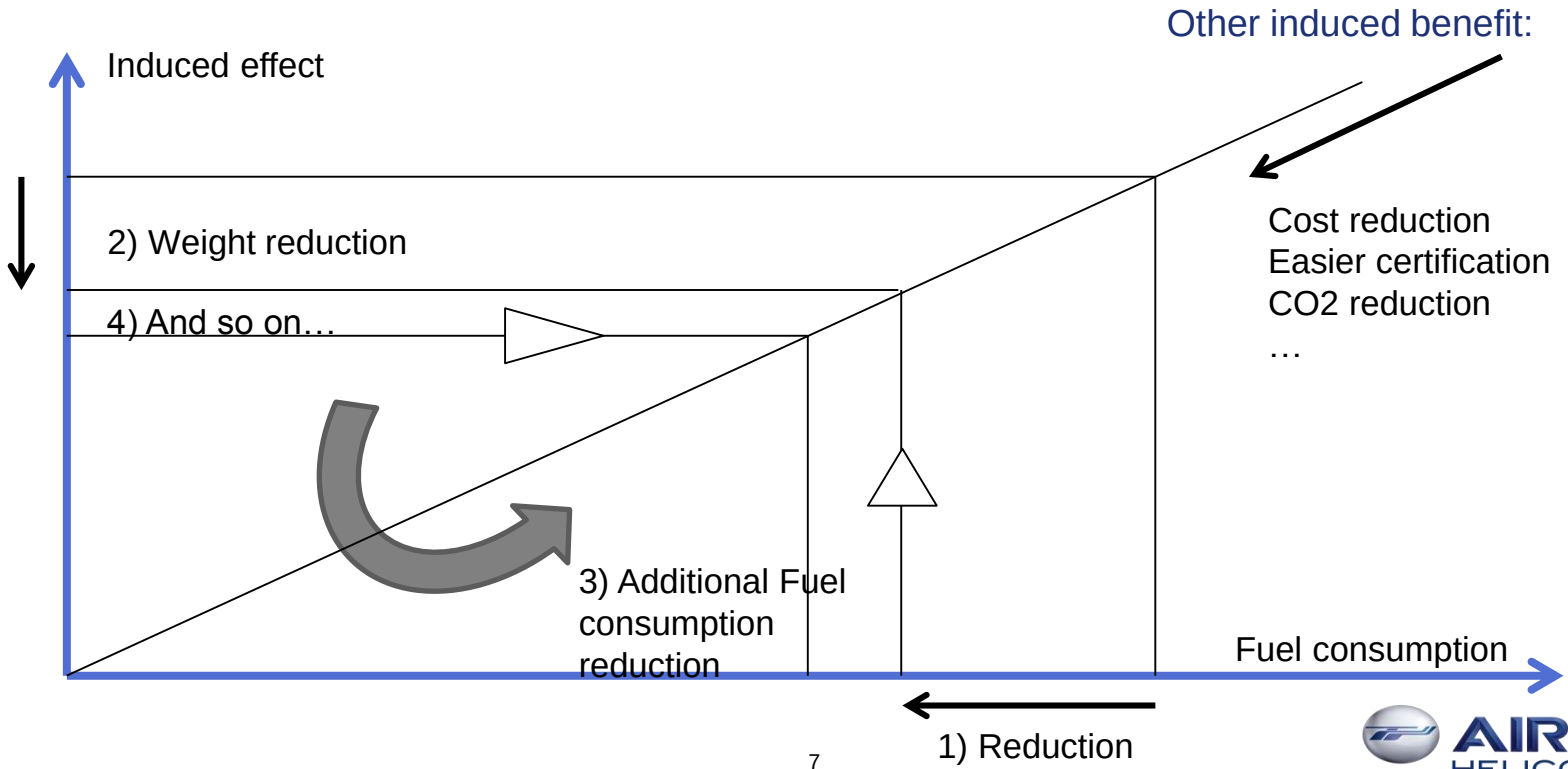
And more…the "Virtuous Circle":

when you gain on a factor, you can gain also on others factors…



Other example of multi skilled research for materials and processes breakthrough

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High Pulse Power (HPP) Processes

Topic

Metallic part forming, crimping or welding by electromagnetic force generated by electrical discharge through a coil

Added value for customers

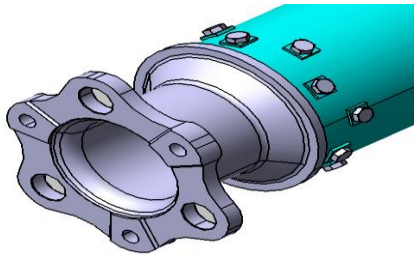
Cost competitiveness (RC)

Green

Multi-skill challenge

Parts specifications / Design to manufacturing / Stress / Definition HPP mean to specific aeronautical parts

Before

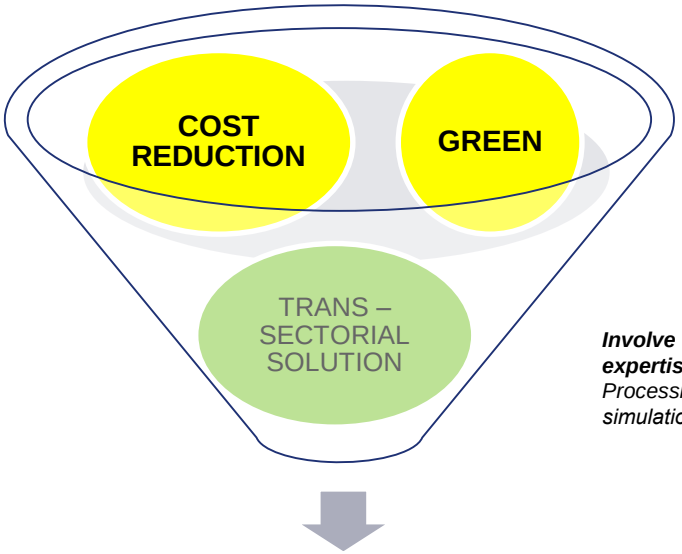


Shaft flange: conventional

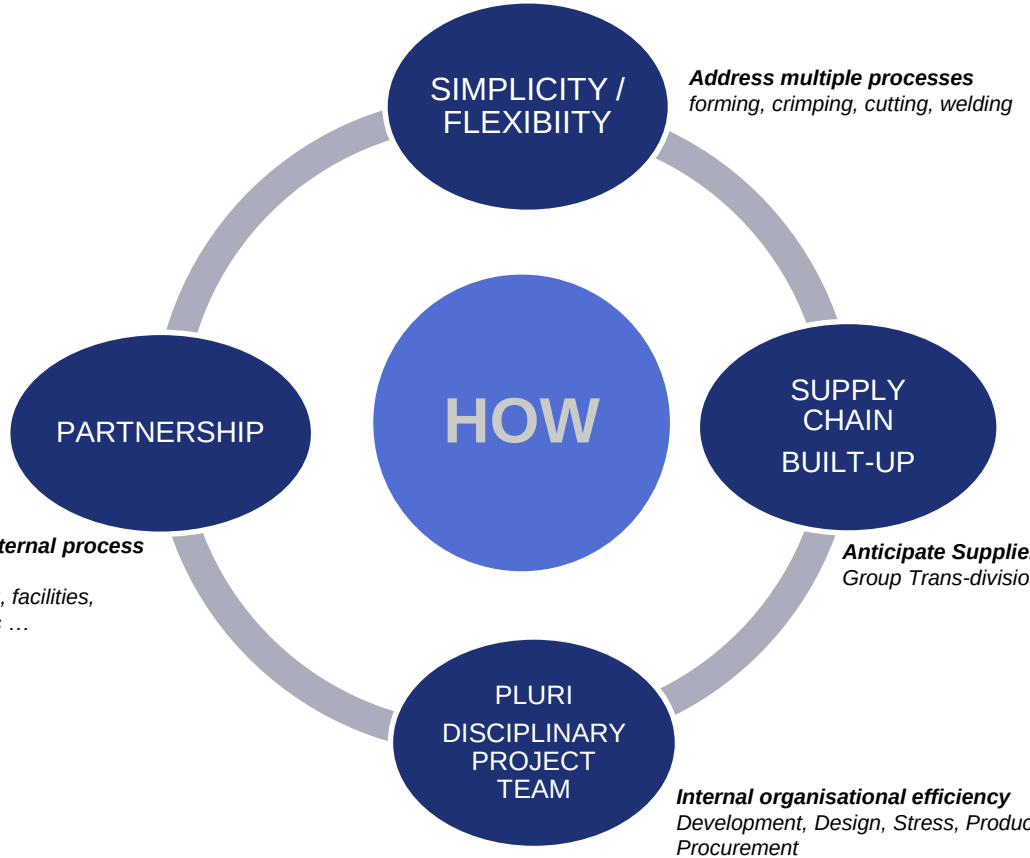
After

Shaft flange: HPP welding

HPP: From Innovation Thinking to Implementation



High Pulse Power (HPP) Processes



Address multiple processes
forming, crimping, cutting, welding

Involve external process expertise:
Processing, facilities, simulations …

Anticipate Suppliers
Group Trans-divisions synergies

Internal organisational efficiency
Development, Design, Stress, Production Procurement

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