9 windows

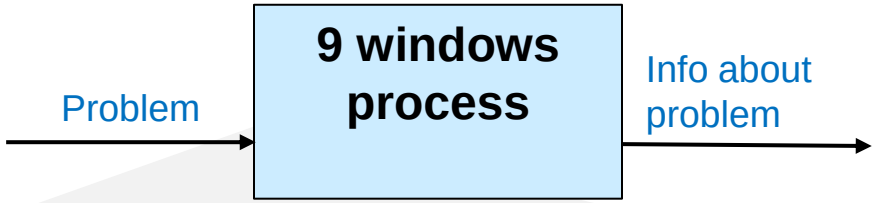
Problem
How to improve a product or process?

Difficulty
Work with an SME

1. **9 Windows** considers innovation via 9 "windows" of time and space:
   A. "**Time**" = when the problem could have been solved: **past**, **present**, or **future**.
   B. "**Space**" = where the problem is solved: **super-system, system**, or **subsystem**.
   - Sub-system = component of the system
   - Super-system = external environment the system interacts with
2. A 9 windows grid is below.

		Time		
		Past	Present	Future
Space	Super-system			
	System		*problem*	
	Sub-system			

9 windows grid



1. Select a specific problem (the "system").
2. Create the 9 windows grid
3. Fill in the grid:
   A. Put the problem in the center.
   B. Document the key element(s) of the
      - super- and sub-systems
      - past and future
   C. Then, fill in the remaining 4 corners of the grid (shown yellow in image below left)
4. From the information in the grid assess the innovation opportunities, essentially whether to focus on time attributes or system attributes.

9 windows – Example – COVID restrictions

Problem: *Covid limits face-to-face (F2F) activities for school children.*

		Time		
		Past	Present	Future
Space	Super-system	School districts distribute general guidelines which schools adapt as needed	School districts distribute educational material for Covid's "new normal"	Nationwide, best practices are determined, materials are developed and distributed
	System	School children meet F2F all day at school	*Covid limits face-to-face (F2F) activities for school children*	3D and immersive environments are used in schools
	Sub-system	School children learn social skills while eating lunch.	Students sit 6 feet apart, which limits social interaction	Students engage in fun activites ("games") during lunchtime that support growth of social skills.

Eating lunch at school is a part (a specific sub-system) of the school experience.

These are things that could exist in the future..

Conclusion: At the local level, it may be that focusing on the “time” aspect is more useful in the short term. The “space” aspect, would be beneficial, but may be take longer.

9 windows – Notes

Slide 1

1. This tool was first described in David Silverstein, Philip Samuel, and Neil DeCarlo, *The Innovator's Toolkit: 50+ Techniques for Predictable and Sustainable Organic Growth*
2. This tool is often used in TRIZ.
3. The super-system is sometimes called the “macro system”.
4. The subsystem is sometimes called the “micro system.”

Slide 2

1. Only 1 sub-system is indicated for this example, while there are many others. Each sub-system of potential interest should be included and documented.