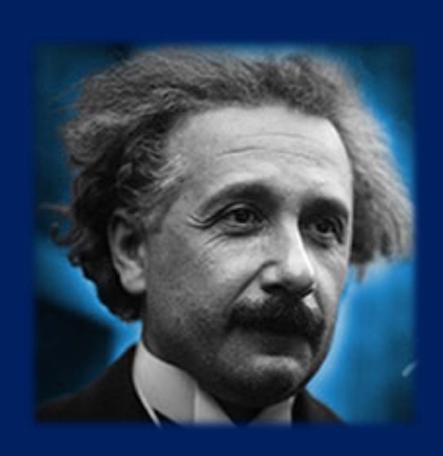
# IMPACT OF SOCIAL AND TECHNOLOGY CHANGE ON SOLID WASTE

Jim Lapp

Canadian Representative

Solid Waste Association of North America

#### BEGINNING THOUGHT



The future is an unknown, but a somewhat predictable unknown. To look to the future we must first look back upon the past. That is where the seeds of the future were planted. I never think of the future. It comes soon enough.

Albert Einstein

#### WHAT IS THIS ABOUT?

- Social Change
- Technology Change
- Changing Wastes
- Consequences
- What About the Future?



#### SOCIAL CHANGE Nunavut example

























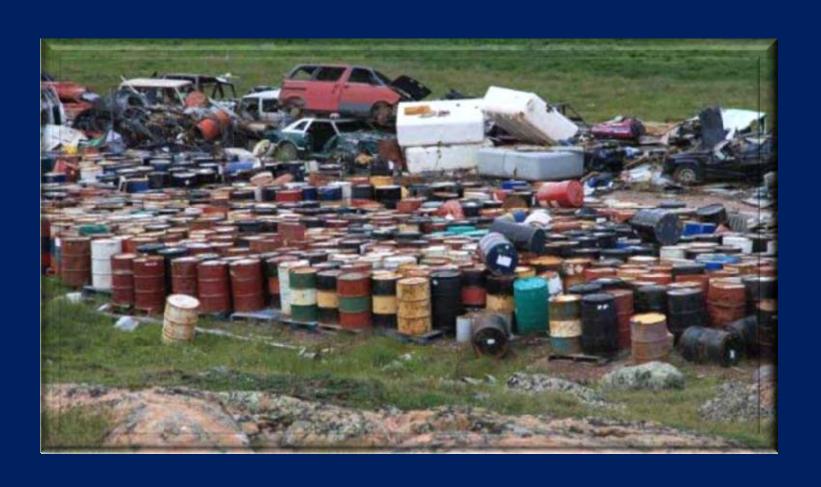




#### CONSEQUENCE



#### LACK OF INFRASTRUCTURE



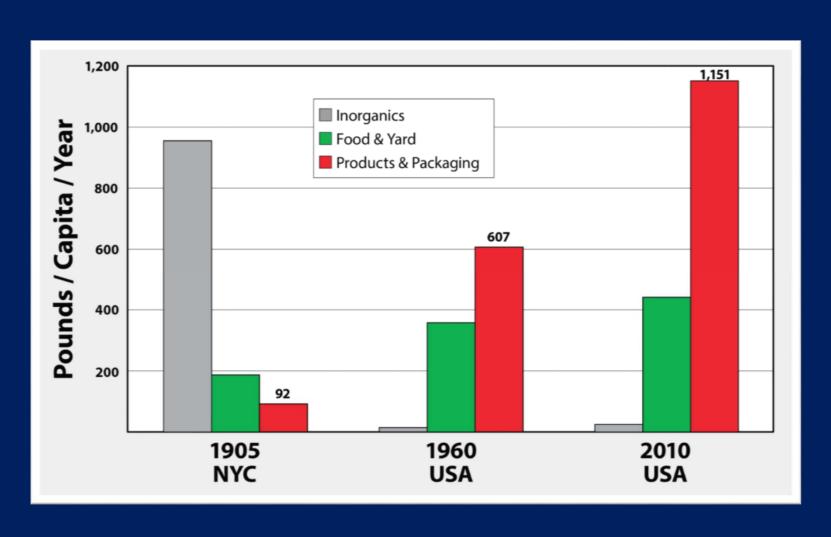
#### LACK OF RESOURCES



#### WHERE ARE WE GOING?



## WASTE COMPOSITION CHANGES WITH SOCIAL AND TECHNOLOGY ADVANCES



### WE TRY TO ADAPT TO THESE CHANGES



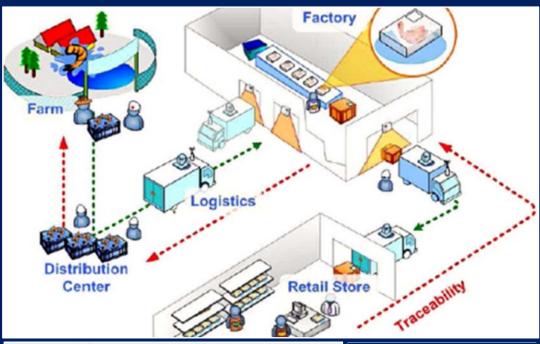




#### WHAT ELSE LIES AHEAD?



### GLOBAL FOOD DEMAND IS EXPECTED TO RISE BY 35% BY 2030.





Tools
Equipment
Packaging
Emissions



#### PACKAGING





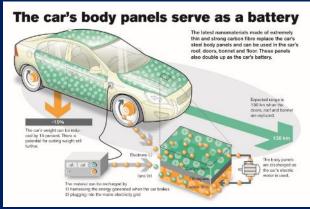
#### TECHNOLOGY EVOLUTION



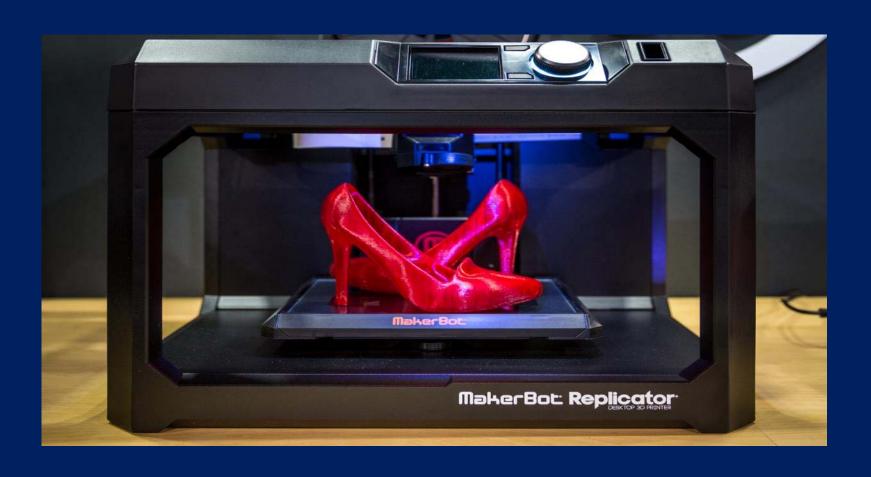
#### TECHNOLOGY REVOLUTION



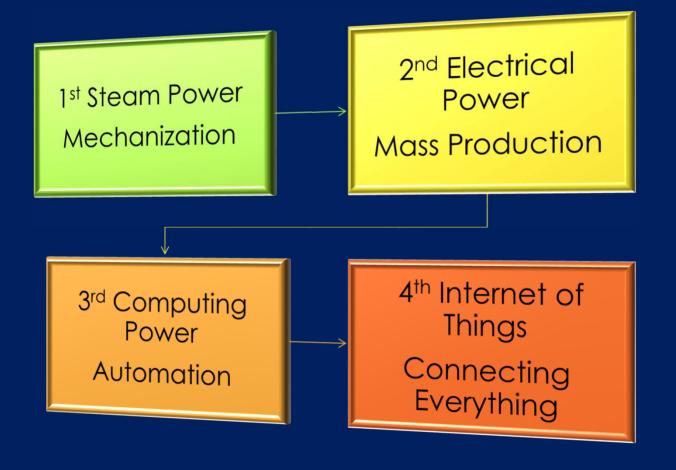




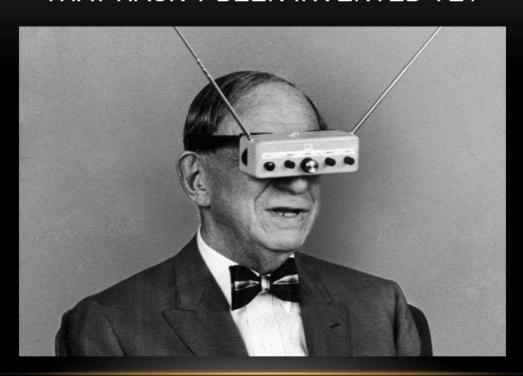
### 3D PRINTER IN EVERY HOME



### 4<sup>TH</sup> INDUSTRIAL REVOLUTION



#### IN 5 YEARS, YOU'LL BE USING TECHNOLOGY THAT HASN'T BEEN INVENTED YET



#### "GARBAGE DESIGNERS WILL BE KEY PLAYERS IN A FUTURE ECONOMY" \*

- WHAT ARE CONCEQUENCES OF NEW TECHNOLOGIES?
- PRODUCT DESIGN CAN WE AVOID?
- WHAT ARE INFRASTRUCTURE NEEDs?
- WHAT ARE RESOURCE NEEDS?

\*Careers 2030

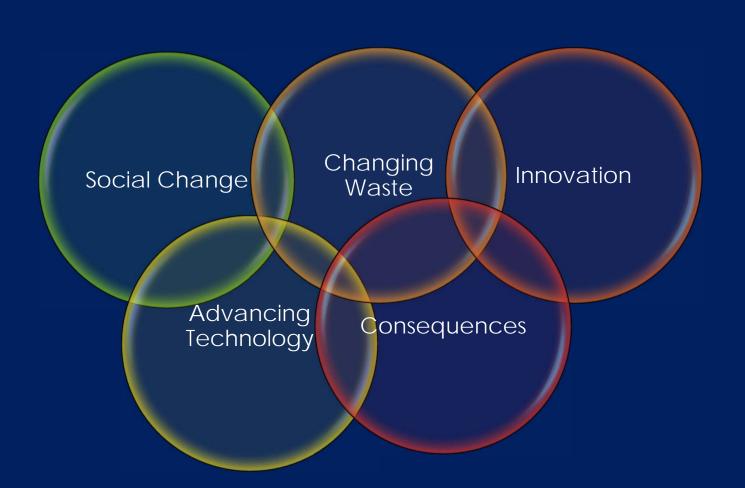
### WHO WILL BE THE INNOVATORS?



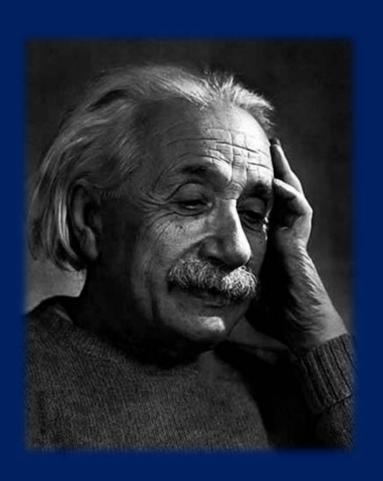
#### OLD GUYS RULE



#### WHAT WAS THIS ABOUT?



#### FINAL THOUGHT



We cannot solve our problems with the same thinking we used when we created them

Albert Einstein