

# "Different Strokes for Different Folks"

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# "Compare and Contrast"

- Two Case Studies
  - Fuel Additives
  - Personal Care





- Challenges Facing Smaller Companies
  - Issues of formulation





## Case Study 1 – Fuel Additives

- DCI-11 corrosion inhibitor for ethanol fuels
  - Critical to avoid engine damage
  - Delivered into ethanol at 30ppm
- Changes to biofuel definitions
  - Move from chemistry to GHG savings
  - Taxes/Mandates linked to CO<sub>2</sub> / GHG savings
- Carbon has direct quantifiable monetary value!





#### **Upstream and Downstream**

- Upstream
  - How much carbon is released in manufacture and use ?
    - ◆ 1.49 tes CO<sub>2eq</sub>/ te product (gasoline is 2.4 tes/te)
- Downstream Benefit
  - How much carbon can the product save because it changes downstream products or processes?
    - One tonne of gasoline requires volume of DCI-11 which will contribute 4.5g CO<sub>2</sub>
    - Saving by enabling E10 ethanol blended fuel
      - 96 kg CO<sub>2</sub> per tonne
  - Enables benefit of over 20,000 x its "carbon cost"





# Case Study 2 – Personal Care

- Surfactants for moisturisers and shampoo
  - New product, excellent properties
- Enormous data requests from customers
  - Everything from performance properties
  - To child labour and ..... carbon footprint
- But, where's the value?
  - Consumers are still on 'natural' and 'organic'
  - Is this any more than just (expensive) PR?
  - Will consumers ever have the incentive ?









Challenges Facing
Smaller Companies

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**Especially Formulators!** 

### Challenges

- Cost and return on investment
- Resources critical mass & technical skills
- Overwhelming Standards / Certification
  - Making Perfection the Enemy of Good
- Reliance on Upstream
  - Fragile chain dependent on inputs
  - Small companies being badly treated
  - Formulators add just 1-2% CO<sub>2</sub>
    - Protection of confidential business information







in a world of specialty chemicals

