

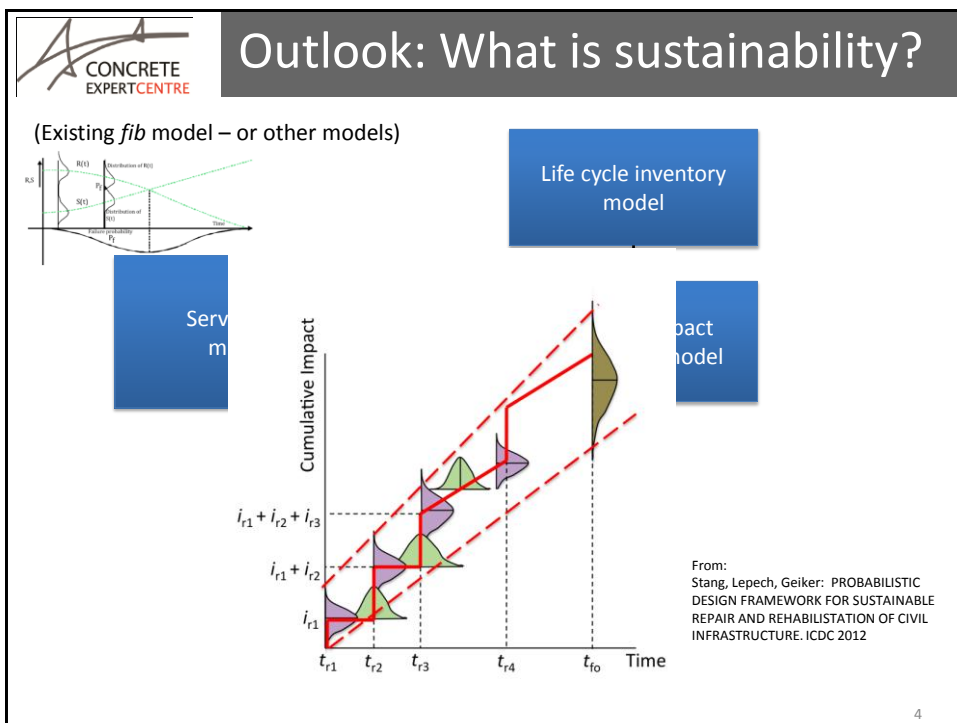
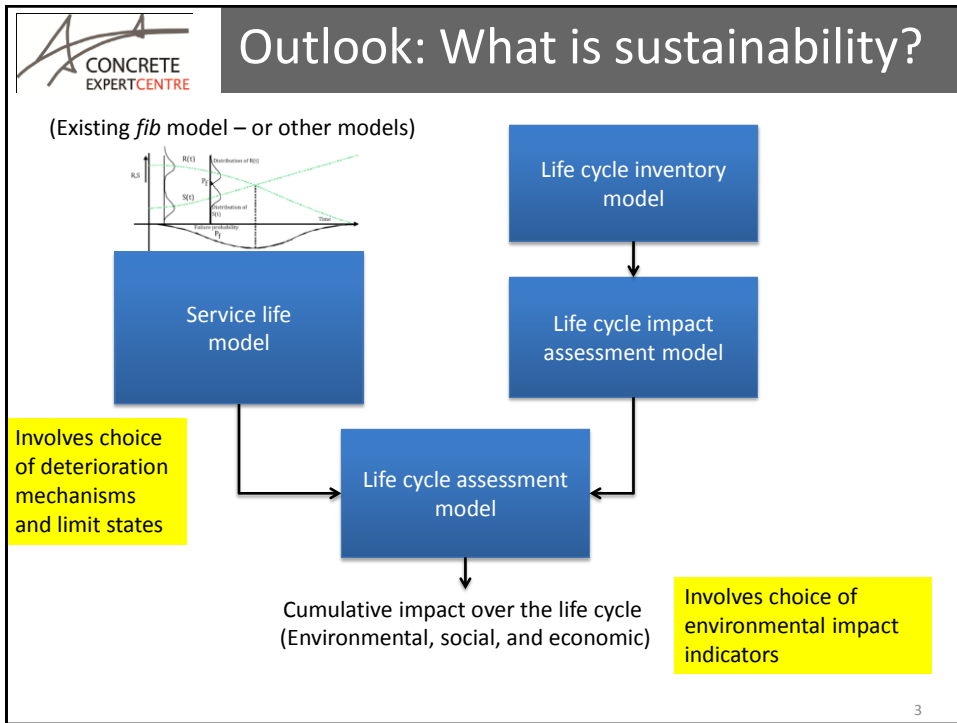


Concrete Expert Centre Reference Group Meeting,
Spring 2012,
Høje Taastrup, Denmark, March 28, 2012



What is durability ?

- This question cannot be answered without *quantitative* tools
- Service life *models* provide such tool
- Service life models represent a *choice* of deterioration *mechanisms* and associated *models* and limit states
- Deterioration models involves complex, interdependent (coupled) processes
- Such models are worthless without experimental verification
- Eventually service life models must be formulated in a probabilistic fashion and deal with a range of mechanisms, limit states and loading scenarios to be able to answer a simple question like 'what is the expected increased in service life is the concrete cover is increased with 10 mm?'





Outlook: Decision making

- Sustainability is just one item in a set of high level parameters in decision making
- Service life predictions (and the associated models) (should) play an important part of all high level decision making tools
- Service life models and their integration in high level decision making tools is an important field for further development and research.

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Program of today

| Time | What | Who |
|-------|--|--|
| 14.00 | General introduction | Henrik Stang, DTU |
| 14.20 | Numerical modeling of service life | Alexander Michel, DTU |
| 14.40 | Model for binding of chloride | Søren L. Poulsen, Teknologisk Institut |
| 15.00 | Transport modeling | Mads Mønster, DTU |
| 15.20 | Coffee and cake | |
| 15.40 | Influence of curing temperature on the development of properties | Martin Kaasgaard, Teknologisk Institut |
| 16.00 | Modeling and experimental observations of concrete cracking related to reinforcement corrosion | Anna Emilia A. Thybo/Henrik Stang, DTU |
| 16.20 | General discussion | |
| 16.55 | Closure | Henrik Stang, DTU |