





Imperial College London WHY FLEXIBILITY MATTERS? 90.09 80.09 Engineering discipline increasingly complex Need socio-technical considerations 70.0% 60.0% 50.0% 40.0% requency Increasing needs for computational design techniques Uncertainty affects lifecycle performance Markets volatile, demographics and regulations change, technology evolve NPV (S Flexibility can improve performance by 10%-NPV Flexible --- Mare NDA 30% compared to standard approaches Protects from downsides (e.g. insurance) **IUT Global:** Position for upsides (e.g. stock option) WTE system in Singapore designed to convert daily 800 Enables sustainable design & management Net effect: better expected performance, tons food waste into biofuels and power sustainability and resilience! 10,000 homes, but Deterministic approach to design and waste amounts collected never management may lead to system failure reached expectations. Only 500 homes IUT Global Others: Iridium, Ghost cities in China, more... powered in 2011, Growing needs in industry and government company shut down (Eco-Business, 2011) © 2020 M.-A. Cardin DAFNI Presentation











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