

LCA Congress – avniR
November 2013

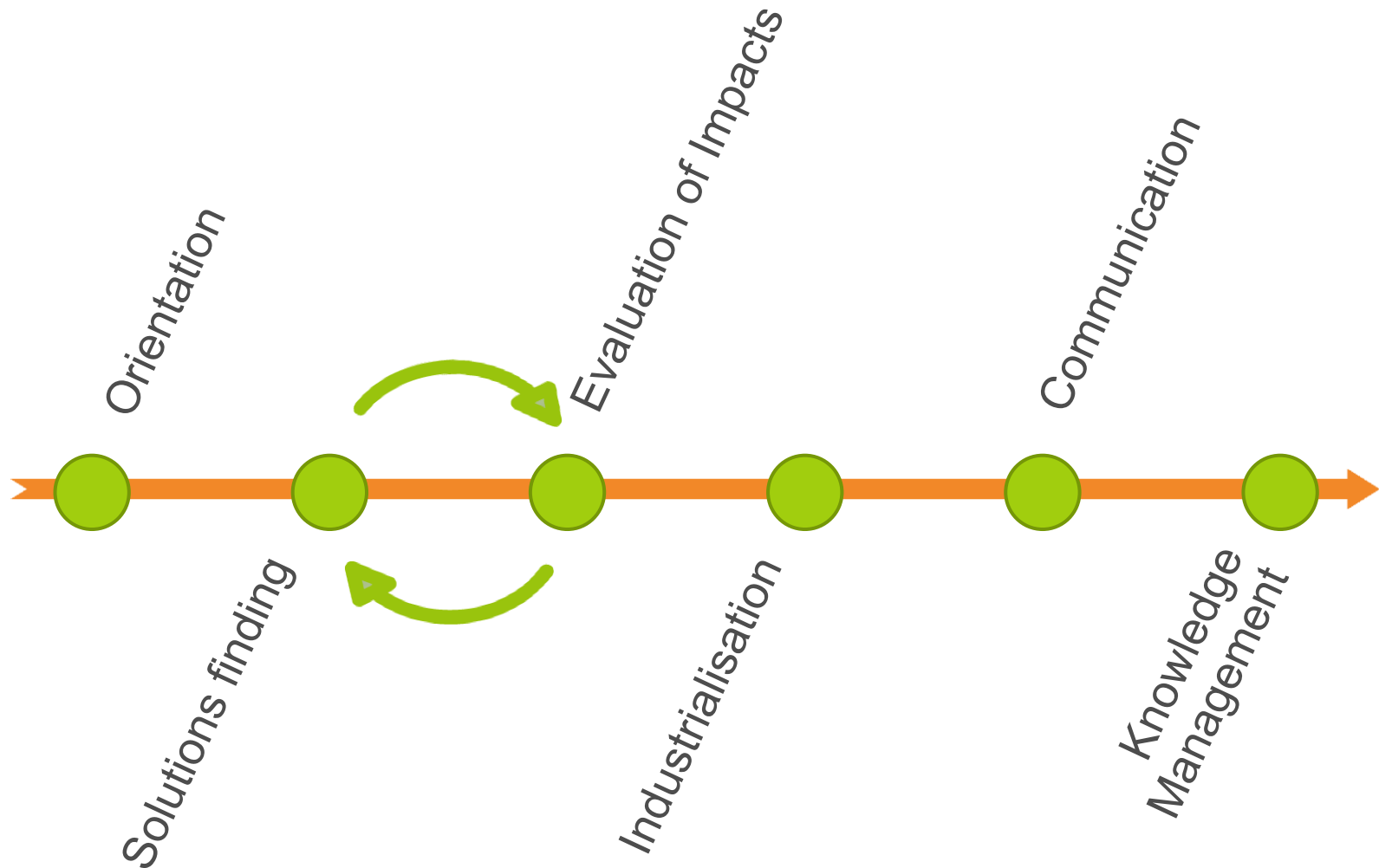
WHICH ROLES FOR LCA IN AN ECO-DESIGN PROCESS?

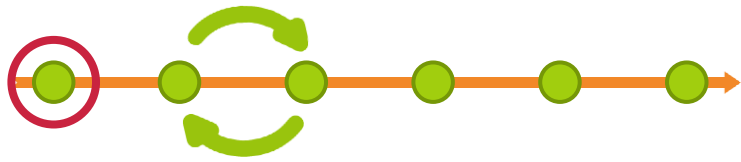
Hélène Teulon
Benjamin Canaguier

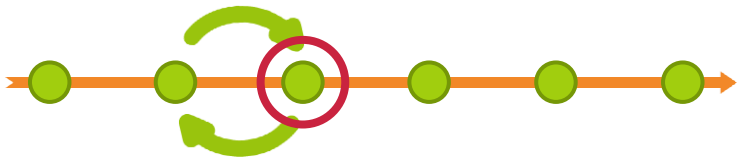


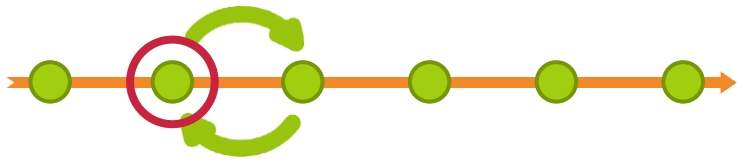
How to practically use LCA in an ecodesign process ?

A typical ecodesign process





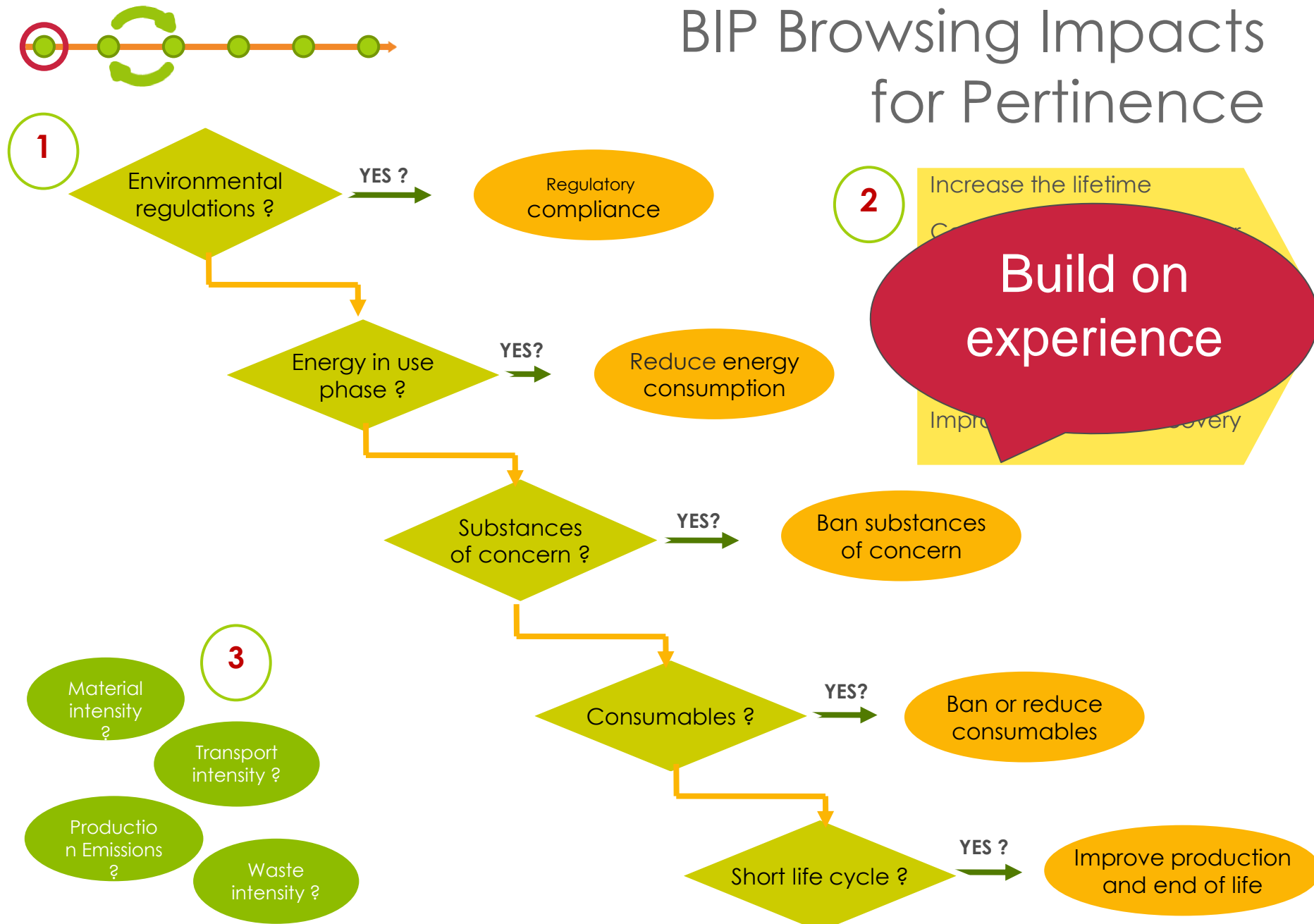


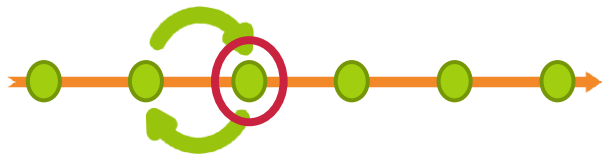


How to practically use LCA in an ecodesign process ?

- How to measure impacts of a product which does not exist yet?
- How to match the timing of the project with the delays inherent to the completion of a LCA study?
- How to share with design teams, non expert in LCA, a readable and useful information?
- Build on existing knowledge
- Make it quick
- Make it simple

BIP Browsing Impacts for Pertinence





LCA Screening

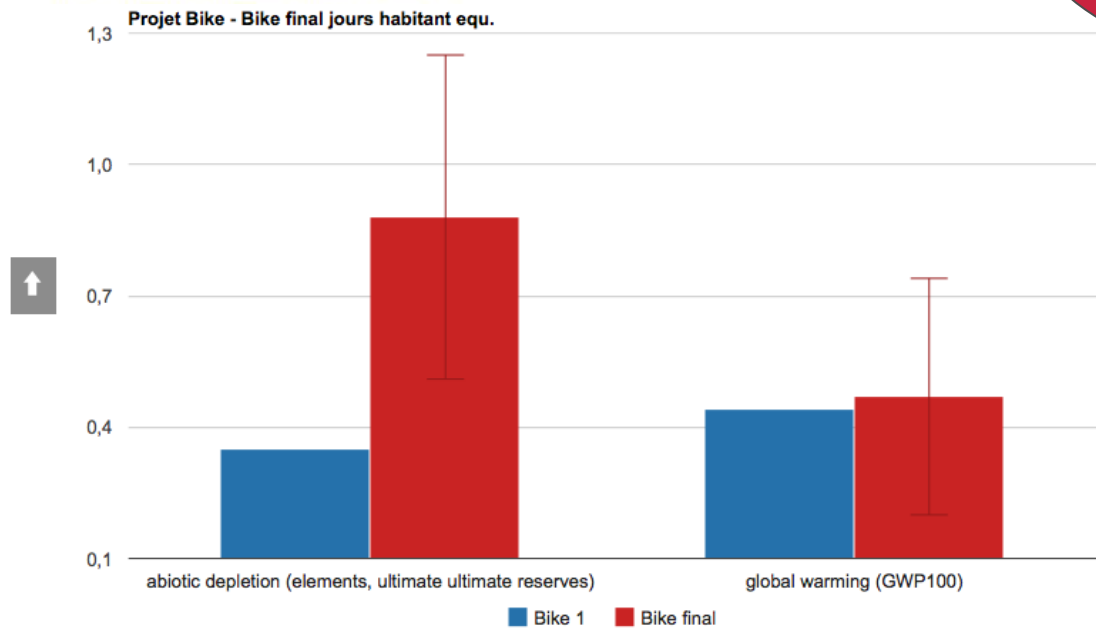
Biloba^{beta}_{web}
Outil de simulation environnementale rapide

ACCUEIL **COMPTE** COMPTES PRO CONTACT

Make it quick!

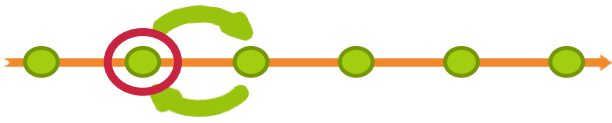
Résultats comparés

Bike > Version 1 > Résultats > Résultats comparés



abiotic depletion (elements, ultimate ultimate res 1.23e+0 [8.61e-1 ~ 1.60e+0] jours habitant	
▼ Bike 1	3.50e-1 [2.45e-1 ~ 4.55e-1]
▼ Bike final	8.80e-1 [6.16e-1 ~ 1.14e+0]

- Composants
- Composants Wheels
- FABRICATION
- Fabrication Assemblage
- DISTRIBUTION
- Transports de distribution
- UTILISATION
- Utilisation Washing
- FIN DE VIE
- Transports de fin de vie
- Déchets du produit
- RESULTATS
- Résultats
- Résultats normalisés
- Résultats comparés



Multi-Impact Multi-Step Matrix

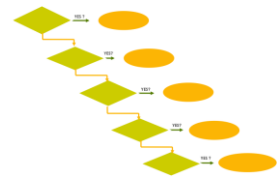
	Production	Distribution	Use	End of Life
Energy consumption	+	+		
Substances of concern	≈0	≈0		
Consumption of natural resources (non energetical)	+++			
Emissions to air	+	+		≈0
Emissions to water	+			
Emissions to soils				
Production of waste				+
Other impacts (noise, EM waves...)	+	≈0	≈0	≈0

Make it simple!

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+++ High impact + Significant impact ≈0 Low impact

Conclusion



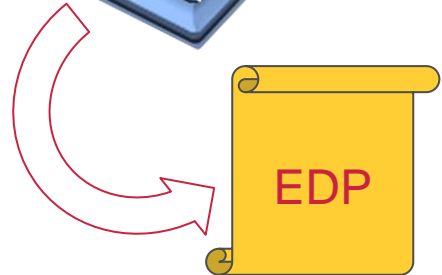
BIP

	Production	Distribution	Use	End of Life
Energy consumption	++	++	++	++
Material use of concern	++	++	++	++
Environmental impact (acid equivalent)	+++	++	++	++
Emissions to air	++	++	++	++
Emissions to soil	++	++	++	++
Emissions to water	++	++	++	++
Production of waste	++	++	++	++
Other impacts from the system	++	++	++	++

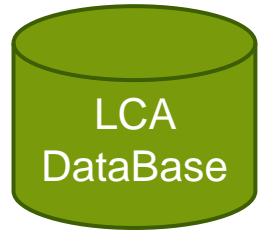
MIMS



LCA Screening



EDP



LCA DataBase