

Changeability Requirements Screening Tool - Questionnaire



		City Bike		Mountain bike	
PRODUCT QUESTIONS		Standard answers (type/select your choice)		Standard answers (type/select your choice)	
	Variety	answer part 1	answer part 2	answer part 1	answer part 2
q1	How many product/part variants exist? For your specific industry, is that considered Very High (VH), High (H), Medium (M), Low (L) or Very Low (VL) variety?	100	H	32	M
q2	How is product/part variety expected to evolve in the next 3–5 years? And what is the main driver for change?	H	new materials new product generation: electric city bike	M	new materials
q3	How does the physical size/geometrical dimension of the product/part differ across variants?	H	N.A.	H	N.A.
q4	How do the materials differ across variants?	H	N.A.	L	N.A.
q5	How does the weight differ across variants?	M	N.A.	M	N.A.
q6	To which extent is size/geometrical dimension of products/parts expected to differ for new generations and new variants?	M	N.A.	M	N.A.
q7	To which extent are the materials of products/parts expected to differ for new generations and new variants?	VH	N.A.	L	N.A.
q8	To which extent is the weight of products/parts expected to differ for new generations and new variants?	M	N.A.	M	N.A.
q9	Customisation				
q9	To which extent are current products/parts customised? For your specific industry, is that considered Very High (VH), High (H), Medium (M), Low (L) or Very Low (VL) customisation?	90%	H	20%	M
q10	How is product/part customisation expected to evolve in the next 3–5 years? And what is/are the main driver/s for change?	H	new colors	M	type main driver/s for change (e.g. new colors, new sizes,...)
q11	Processing requirements				
q11	Do product/part designs have in common any modules/subassemblies (i.e. modules/subassemblies of the product/part that are used for multiple variants)?	M	N.A.	M	N.A.
q12	Which degree of commonality/reuse of modules/subassemblies is expected in future new product/part designs?	L	N.A.	H	N.A.
q13	To which extent are processing requirements different for product/part variants?	H	N.A.	VL	N.A.
q14	How are processing requirements of new product/part generations and variants expected to differ from existing processing requirements?	H	N.A.	L	N.A.
q15	How often do changes in processing requirements occur after system design has started? (e.g. the process/es need to be adapted because the demand for a specific variant is surprisingly high and this impacts a lot on processing requirements)	VH	N.A.	VL	N.A.
q16	New product/part introduction				
q16	How often are new product/part generations currently introduced? For your specific industry, is that considered Very High (VH), High (H), Medium (M), Low (L) or Very Low (VL)?	10/year	H	0,5/year	M
q17	How is introduction of new product/part generations expected to evolve in the next 3–5 years?	H	N.A.	L	N.A.
q18	Product/part life-cycle				
q18	What is the current length of a product/part's life cycle in production? For your specific industry, is that considered Very High (VH), High (H), Medium (M), Low (L) or Very Low (VL)?	2 years	M	10 years	M
q19	How is the length of product/part life cycles expected to evolve in the next 3–5 years?	L	N.A.	M	N.A.
PRODUCTION QUESTIONS		Standard answers (type/select your choice)		Standard answers (type/select your choice)	
	Production volume	answer part 1	answer part 2	answer part 1	answer part 2
q20	What is the total annual production volume? For your specific industry, is that considered Very High (VH), High (H), Medium (M), Low (L) or Very Low (VL)?	8000	M	16000	H
q21	How is the production volume expected to evolve in the next 3–5 years?	M	N.A.	H	N.A.
q22	How much does total production volume currently fluctuate between planning periods?	L	N.A.	VL	N.A.

q23	How are fluctuations of total production volumes expected to evolve in the next 3–5 years?	M	N.A.	L	N.A.
q24	How unpredictable is total production volume?	M	N.A.	VL	N.A.
q25	How is unpredictability of total production volume expected to evolve in the next 3–5 years?	M	N.A.	M	N.A.
1	Production mix				
q26	How much does production volumes for individual product/part variants fluctuate between planning periods?	M	N.A.	VL	N.A.
q27	How are production volume fluctuations for product/part variants expected to evolve in the next 3–5 years?	M	N.A.	L	N.A.
1	New production volume				
q28	How unpredictable are production volumes of new product/part introductions?	M	N.A.	L	N.A.
q29	How unpredictable is the timing of market launch of expected new products/parts?	M	N.A.	VL	N.A.
TECHNOLOGY QUESTIONS		Standard answers (type/select your choice)		Standard answers (type/select your choice)	
1	Processing change	answer part 1	answer part 2	answer part 1	answer part 2
q30	How often is new processing technology upgrading required in production machinery and equipment? For your specific industry, is that extent considered Very High (VH), High (H), Medium (M), Low (L), or Very Low (VL)?	3/year	H	0,1/year	M
q31	Are disruptive production technologies expected to evolve in the future?	VH	N.A.	VL	N.A.
1	Materials change				
q32	How often are new product/part materials introduced? For your specific industry, is that extent considered Very High (VH), High (H), Medium (M), Low (L), or Very Low (VL)?	4/year	H	0,1/year	M
q33	How is the number of new product/part material introductions expected to evolve in the next 3–5 years?	H	N.A.	M	N.A.