



Dr. Ulla Forsström, ulla.forsstrom@vtt.fi &

Ms. Catharina Hohenthal, catharina.hohenthal@vtt.fi



Prof. Samuel Schabel, schabel@papier.tu-darmstadt.de



Dr. Gert Meinl, gert.meinl@ptspaper.de



Dr. Antonio Dobon, adobon@itene.com



Mr. Michiel Adriaanse, m.adriaanse@bumaga.nl



Mr. Jori Ringman, j.ringman@cepi.org



Mr. Bogdan Negreanu, bogdan.negreanu@vrancart.ro



Mr. Hans Cool, hans.cool@alucha.com



Dr. Voss Dennis, dennis.voss@utzenstorf-papier.ch



Dr. Rauni Seppänen, rauni.seppanen@holmen.com

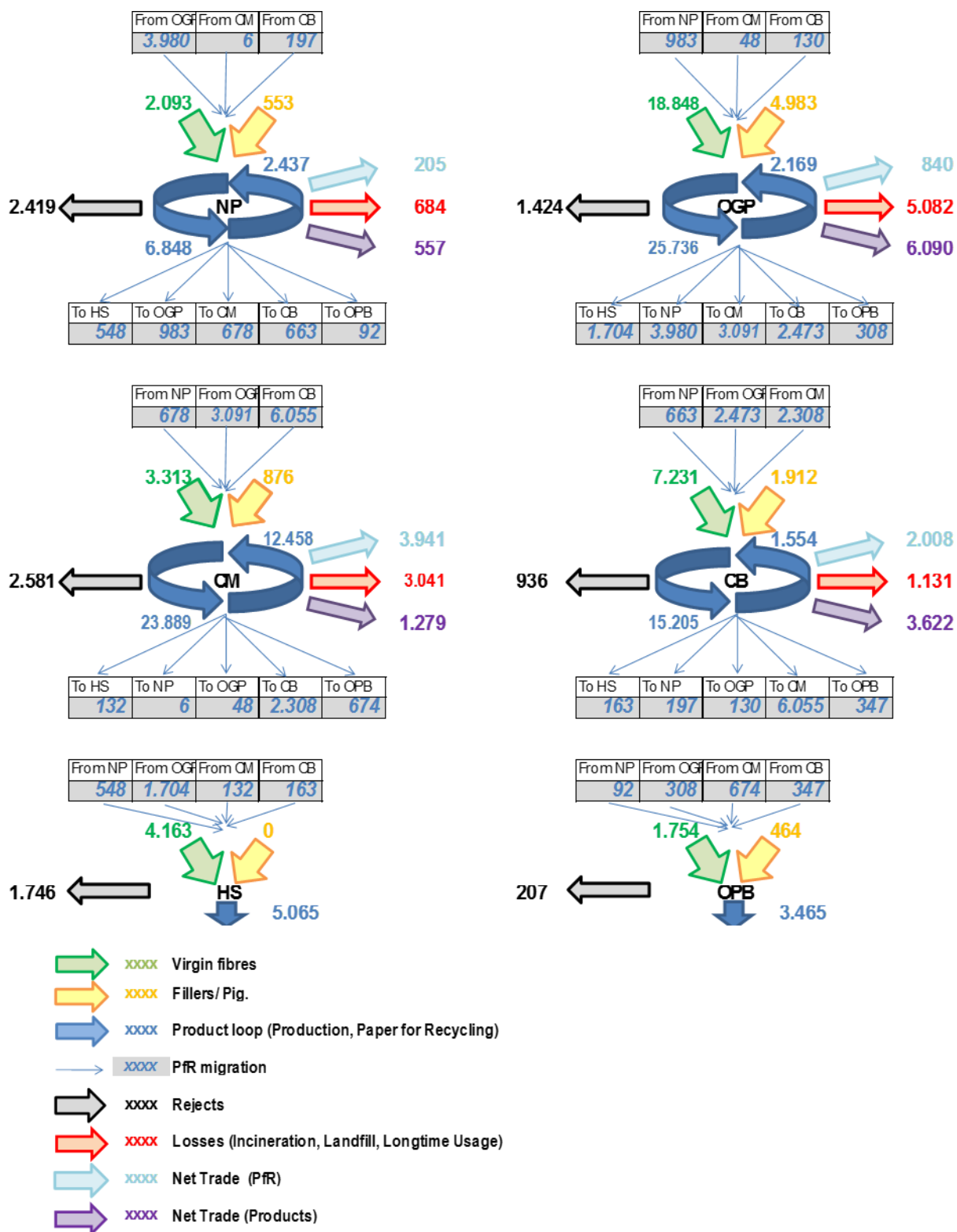


Figure 1. Mass balance for the whole CEPI area

Table 1. MFA, MNU and R for different product segments in the CEPI region

Product	MFA	MNU	MFA+MNU-1	R
Newsprint (NP)	2	4.2	5.2	0.89
Other graphic papers (OGP)	1.14	3.01	3.15	0.75
Case Materials (CM)	3.02	3.09	5.11	0.87
Carton Board & Other Packaging (OP)	1.85	2.79	3.64	0.90

Table 2. LCA allocation factors for different product segments in the CEPI region, as calculated with the help of MFA and MNU

Product	Ai	Ao
Newsprint (NP)	0.8077	0.6154
Other graphic papers (OGP)	0.9556	0.6381
Case Materials (CM)	0.6047	0.4090
Carton Board & Other Packaging (OP)	0.7665	0.4918

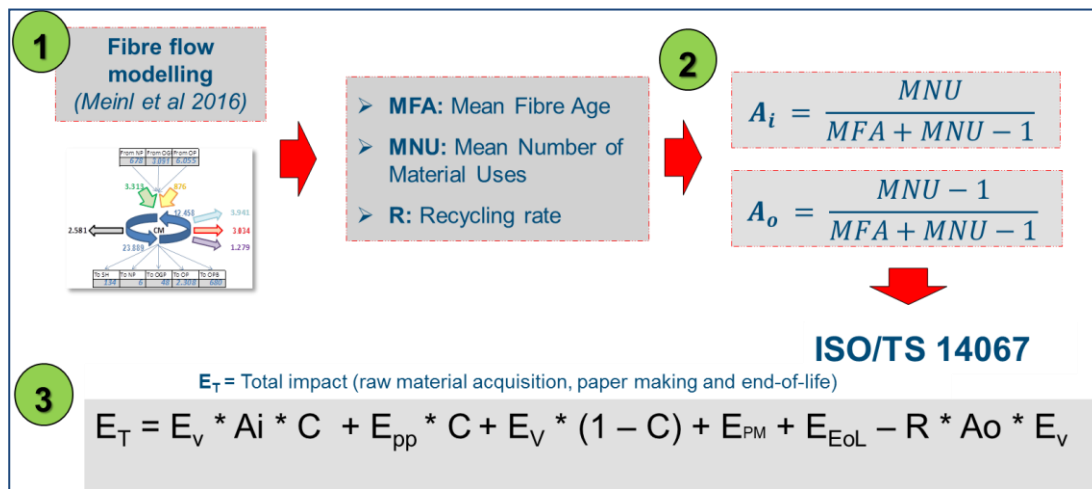


Figure 2. Schematic view of the allocation method developed in Reffibre project taking into account the recycling loops.

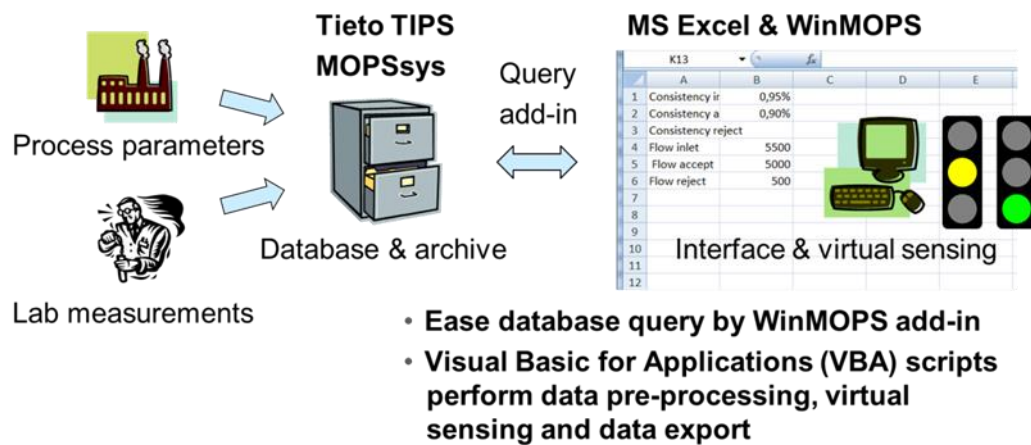


Figure 3. Proposed software interface for allowing the use of process models as “soft” sensors in the papermaking process

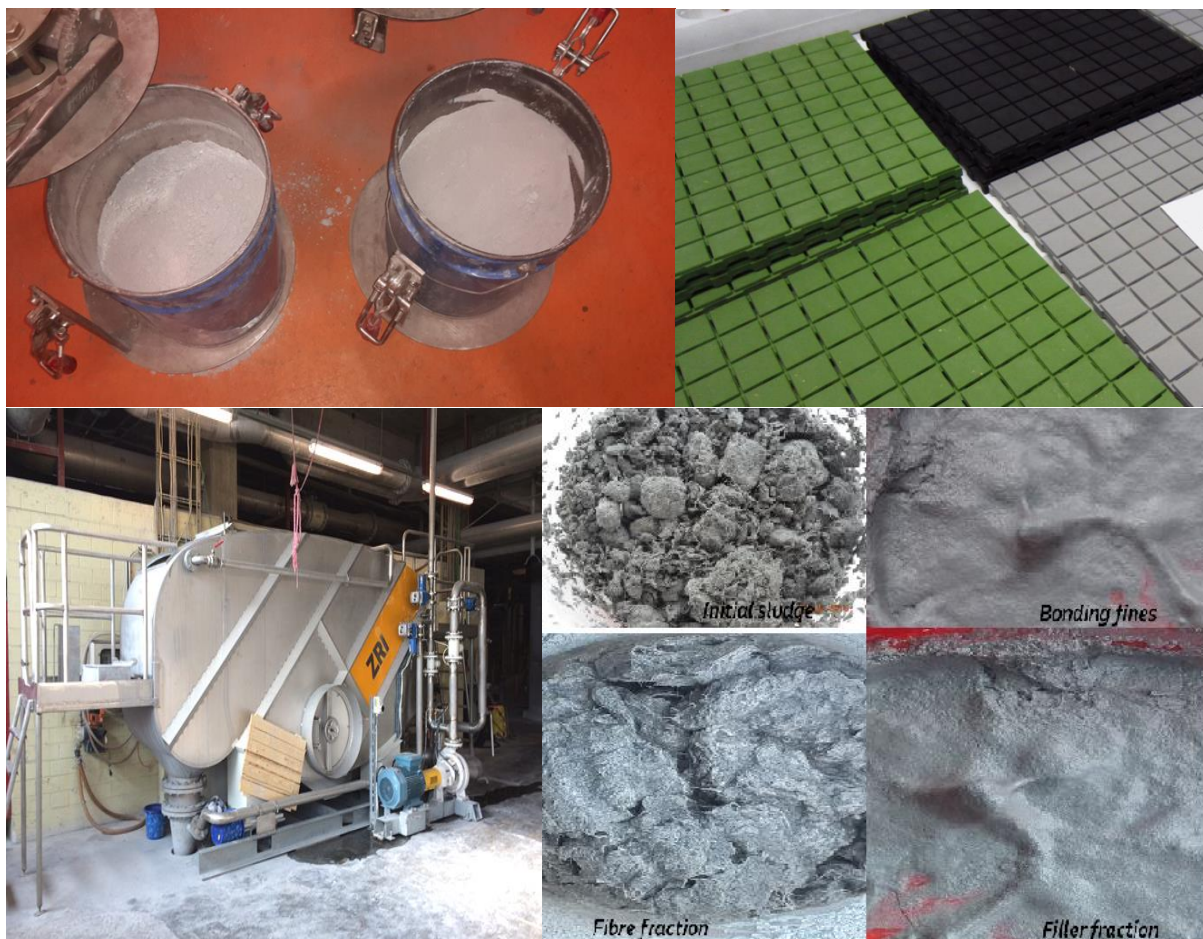


Figure 4. Clockwise from top right corner: Reclaimed mineral fillers from sludge by means of pyrolysis, floor tiles made out of side stream-containing composite materials, fractions generated during sludge fractionation, equipment used for fibre reclamation from fine rejects