

## Result of the SWOT analyses, internal and external issues characterising biomass supply chain for wood chips in South Tyrol

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### Internal strengths

- S1 The increased usage of energy wood and the development of the specific market has increased the maintenance in the private forests
- S2 Due to the increasing biomass and energy sector the innovation potential has increased and some new ideas have been realized
- S3. The most of the drivers in the transportation sector are locals and know the forest roads perfectly
- S4. Very short distances between the regional players, good reachability
- S5. 99,9% of the forest roads are GPS tracked
- S6. High availability of detailed information about forest, water, road network, geology, civil protection, natural hazards and much more on digital basis

### External opportunities

- O1. The development of innovative processes for the harvesting slash could lead to the valorization of a high potential of high quality biomass.
- O2. Evaluate the possibility to dry the biomass prior to burning with unused heat
- O3. The availability of information in the forest sector is quite good, but there is a huge demand on reliable information in the wood sector. Therefor gathering information about energy wood potential in South Tyrol and the elaboration of maps displaying information about the biomass potential, the technical usable forest area and the property distribution are necessary. (The information list is not complete and can be extended)
- O4. Development and implementation of a monitoring system for the wood and biomass needs and offers

### Internal weaknesses

- W1. Quality standards of energy wood differ in parts within the region.
- W2. The public contribution for DHP's does not consider any information about the actual biomass potential in the region.
- W3. The billing of the energy wood does in many DHP's not consider the energetic value of the biomass but just the volume.
- W4. South Tyrol is not able to provide all DHP's with regional biomass. This makes South Tyrolean also very dependent of foreign biomass suppliers.
- W5. Most communication between the actors of the value chain bases oral discussions or phone calls. There is no data exchange standard for the wood sector

### External threats

- T1. The high dependency on wood chips from abroad (no sufficient regional resource)
- T2. Upgrading the DHP plants with electrical power production will increase the demand of biomass. The dependency on foreign suppliers will increase. Also the interference with neighboring plants will increase. Negative effects on ecological aspects can be expected
- T3. The high amount of public contributions lead to many investments which under regular economic aspects and under consideration about the regional availability of the biomass might not be made (common problem)
- T4. The production of electrical power in summer means that the "side product" heat will be emitted to the environment due to missing need
- T5. Players are very skeptical regarding new applications and cloud services
- T6. Senior entrepreneurs and regular workers are not able to use complicated communication systems, therefor there is also the problem that they reject all enthusiasm to introduce new technologies
- T7. If the wood and biomass sector in South Tyrol will not be able to adapt to the present state of the art ICT-systems provided, it will risk to loose competitiveness due to uncompetitive prices