

	Year 1												Year 2												Year 3											
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	M30	M31	M32	M33	M34		
WP0 Project management and communication																																				
WP0.1 Technical and administrative assistance	x																																			
WP0.2 Consortium progress meetings	x																																			
WP0.3 Technical reports	x																																			
WP0.4 Ethics and IP management	x																																			
WP1 Collection and characterization of OS powder																																				
WP1.1 Sample preparation																																				
WP1.2 Characterization of OS powder																																				
WP2 Conversion of OS into biopolymers																																				
WP2.1 Extraction of biopolymers (proteins and polysaccharides)																																				
WP2.2 Characterization of extracted biopolymers																																				
WP2.3 Evaluation of techno-functionalities of the extracted biopolymers																																				
WP2.4 Preparation and characterization of water-soluble cellulose derivatives																																				
WP2.5 Evaluation of biological and pharmacological (anti-proliferative, anti-bacterial, anti-inflammatory and action mechanisms) of the major bioactive molecules, and ex vivo/in vivo biocompatibility properties of OS-derived molecules																																				
WP3 Extraction, purification and characterization of antioxidants																																				
WP3.1 Development of conventional and innovative technologies to recover the antioxidant fraction from OS powder																																				
WP3.2 Purification of antioxidants																																				
WP3.3 Evaluation of antioxidant activity of the obtained extracts																																				
WP4 Optimization and scaling up																																				
WP4.1 Optimization of the developed process of extracting biopolymers and antioxidants from OS powder																																				
WP4.2 Scaling-up the optimized extraction process																																				
WP4.3 Characterization of the extracted molecules																																				
WP5 Development of active ingredients and materials																																				
WP5.1 Development of nanofibers and nanosuspensions enriched with antioxidant properties																																				
WP5.2 Development of OS biopolymers-based films enriched or not with antioxidant properties																																				
WP5.3 Exploitation of OS-biopolymers for the preparation of emulsions and nano-emulsions																																				
WP5.4 Exploitation of OS-biopolymers for the preparation of gels																																				
WP5.5 Development of levon-based hydrogels and cosmetic formulations																																				
WP5.6 Development of wound healing hydrogel patch																																				
WP6 Application of developed products in food, cosmetics and pharmaceuticals																																				
WP6.1 Application in food, food preservation and packaging																																				
WP6.2 Application in cosmetics																																				
WP6.3 Application in wound healing of the hydrogel patch																																				
WP7 Technology transfer and market development of prototypes																																				
WP8 Sustainability assessment																																				
WP8.1 Environmental analysis																																				
WP8.2 Economic analysis																																				
WP8.3 Social analysis																																				
WP9 Dissemination and exploitation																																				
WP9.1 International outreach																																				
WP9.2 Identification and management of exploitable results																																				
WP9.3 Communication and dissemination activities																																				