



<b>Dimensions</b> →	<b>Process:</b> <b>How could you approach it differently?</b>	<b>Product:</b> <b>What are you working on?</b>	<b>Purpose:</b> <b>Why are you working on it?</b>	<b>People:</b> <b>Who might be affected in the future?</b>
<b>Components</b> ↓				
<p><b>Anticipate &amp; Analyze</b> Opportunities</p> <p><b>Tools &amp; Techniques:</b> Foresight Horizon Scanning Scenarios</p> 	<p>Is the planned research methodology acceptable?</p> <p>How do we know we are right?</p> <p><b>Project Challenges</b> Paradigms Assumptions Theories Methodology</p>	<p>Will the products be socially desirable?</p> <p>What impacts can we anticipate?</p> <p><b>Project Challenges</b> Ethical issues Regulation Product properties Animal welfare Food &amp; Feed safety Property rights</p>	<p>Why should this research be undertaken?</p> <p>What are the challenges and goals addressed?</p> <p><b>Project Challenges</b> Protein challenge Malnutrition Sustainability Climate change Business impact</p>	<p>Who matters? Who might care?</p> <p>How are the stakeholders affected?</p> <p><b>Project Challenges</b> Open access Transparency Acceptance &amp; desirability Variety of people &amp; views</p>
<p><b>Reflect &amp; Reason</b> Considerations</p> <p><b>Tools &amp; Techniques:</b> Ethical Assessment Multidisciplinary Collaboration Codes of Conduct</p> 	<p>How should risks and benefits be measured?</p> <p>How should standards be drawn up and applied?</p> <p><b>Project Practices</b> Data security Gender balance Risk assessment Fair trade laws and practices</p>	<p>How will the risks and benefits be distributed?</p> <p>How might the risks and benefits change over time?</p> <p><b>Project Practices</b> Welfare of people and animals Conservation Food &amp; Feed quality</p>	<p>Are these motivations transparent and in the public interest?</p> <p>How could the challenges and goals of the research change?</p> <p><b>Project Practices</b> Maintenance of biodiversity Availability of affordable food Intrinsic value of people and animals Quality of life</p>	<p>Have we included the right stakeholders?</p> <p>Who else could be included?</p> <p><b>Project Practices</b> Variety of stakeholders Behavioural freedom Democratic informed choice Freedom of action Income and working conditions</p>

<p><b>Engage &amp; Include</b> Alternatives</p> <p><b>Tools &amp; Techniques:</b> Open Innovation Focus Groups Citizen Panels</p> 	<p>Who is in control?</p> <p>Who is taking part?</p> <p><b>Project Enablers</b> Researchers People in the food industry</p>	<p>How can we embed stakeholder perspectives?</p> <p>What are the viewpoints of stakeholders?</p> <p><b>Project Enablers</b> Stakeholders Animals and insects</p>	<p>Who will benefit?</p> <p>What are they going to gain?</p> <p><b>Project Enablers</b> Stakeholder groups The society The living environment</p>	<p>Who is affected?</p> <p>Who else could be affected?</p> <p><b>Project Enablers</b> Citizens</p>
<p><b>Act &amp; Respond</b> Capacities</p> <p><b>Tools &amp; Techniques:</b> Regulation &amp; Standards Societal Challenges oriented research Value-sensitive design</p> 	<p>How can responsibilities be shared?</p> <p>How can research structures become flexible?</p> <p><b>Project Barriers</b> Issues with data security Discriminatory practices Gender problems Field testing problems</p>	<p>What needs to be done to ensure social desirability?</p> <p>How can we increase awareness on the impacts?</p> <p><b>Project Barriers</b> Regulation Animal welfare Misuse</p>	<p>How do we ensure that the implied future is desirable?</p> <p>What are the alternative futures?</p> <p><b>Project Barriers</b> System level problems Unpredictability of innovations Environmental issues Ethical dilemmas and problems Production costs</p>	<p>Who prioritizes research?</p> <p>How could this influence be diffused more widely?</p> <p><b>Project Barriers</b> Cultural and religious barriers Dishonesty Ignorance Discrimination</p>