

COMMERCIAL VENTURE RISKS

"IF THERE ARE NO RISKS, IT IS NOT A VENTURE. IN A VENTURE THERE ARE NO GUARANTEES..."

The new technology venture is associated with a certain element of risk that can be divided into these *categories*:

- - technological risks
- ▶ - market risks
- - enterprise growth or management risks

SUMMARY (Details elaborated in the full Technology Description and Business Plan) :

CATEGORY

POTENTIAL RISK:	COMMENT:
● New biosorbents will not work properly in the industrial environment:	Risk reasonably low. Preliminary tests indicate good performance even with industrial solutions. Standard individual "treatability studies" are mandatory for each special treatment case.
● Biosorbent regeneration will not be possible:	Not usual but a <i>possible risk</i> in some <i>special cases</i> . Biosorbents could be so cheap that even once-through use with or without metal recovery is feasible.
● Biosorbent life-time will be too short:	Minimal risk. Tests indicate good stability. Physical granule reinforcement technology known will be further optimized.
● Difficulties with the process application scale-up:	Minimal risk. No difficulties perceived due to long-time experience with well established sorption and very similar ion exchange processes.
▶ Biosorbent price will not be competitive:	Minimal risk. Their low price is guaranteed and their performance so far looks exceptionally well.
▶ The market has been overestimated:	No risk. Market for the closest similar product (ion exchangers) is strong and increasing. The biosorbent share of the market has been estimated very conservatively.
▶ "Soft" environmental market:	Overall minimal risk. All agree that environmental market will not diminish - strong long-range growth forecast.
▶ The competition is too strong:	Low risk. Virtually no biosorbents competition exists. Established and strong ion exchangers are in a different higher-priced "league".
○ The venture capitalization not adequate:	Low risk. Estimates are as good as can be. Biosorbent applications are very near indeed.
○ Not an adequate management team:	Excellent full structure and team will be established as soon as the financing is promised or in place. University expertise now available.
○ The projected Company growth is dubious:	Low risk. Very realistic estimates based on the current status of the technology and market needs. Growth well attainable.
○ The return on the investment is too distant:	Biosorption is a <i>very significant technology</i> with far reaching perspectives. Similar ion exchangers have been developing for 50 years into a \$16.5 billion/y world-wide industry.