



Can Scientific Integrity Be Protected When Outsourcing Early Phase Bioanalysis?

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Outline

- Past
- Present
- Future
- Case Studies
- How to maintain scientific integrity

Past - Pharma

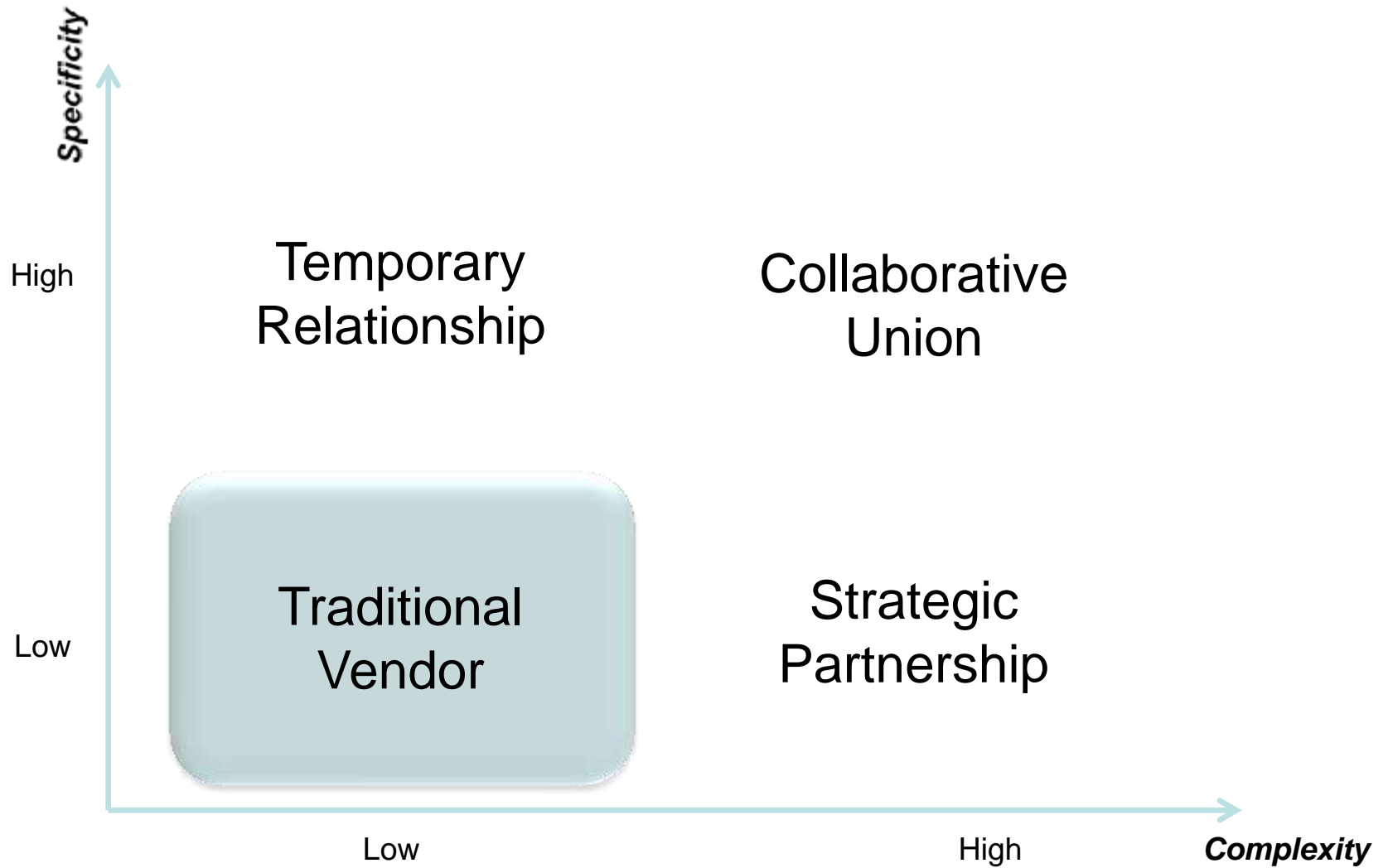
- Companies with internal capability would manage the work from discovery to mid to late stage clinical.
- Companies without internal capacity would hire consultants to assist with outsourcing the BioA work.

Past - Pharma

- Externalisation would be for late stage clinical.

Past – CRO

- CRO's would be primarily used to support later stage work once the assays had been completely understood and developed.
- Early stage work would normally be under guidance from the sponsor or consultant.



Pharma - Present

- Companies with internal capacity have reduced their internal resources moving to outsourcing earlier in the process.
- Many companies still keep BioA work in house until clinical as primary approach.
- CRO's are now being used to support capacity but earlier in the process, some companies have selected preferred vendors, starting to expand the relationship.

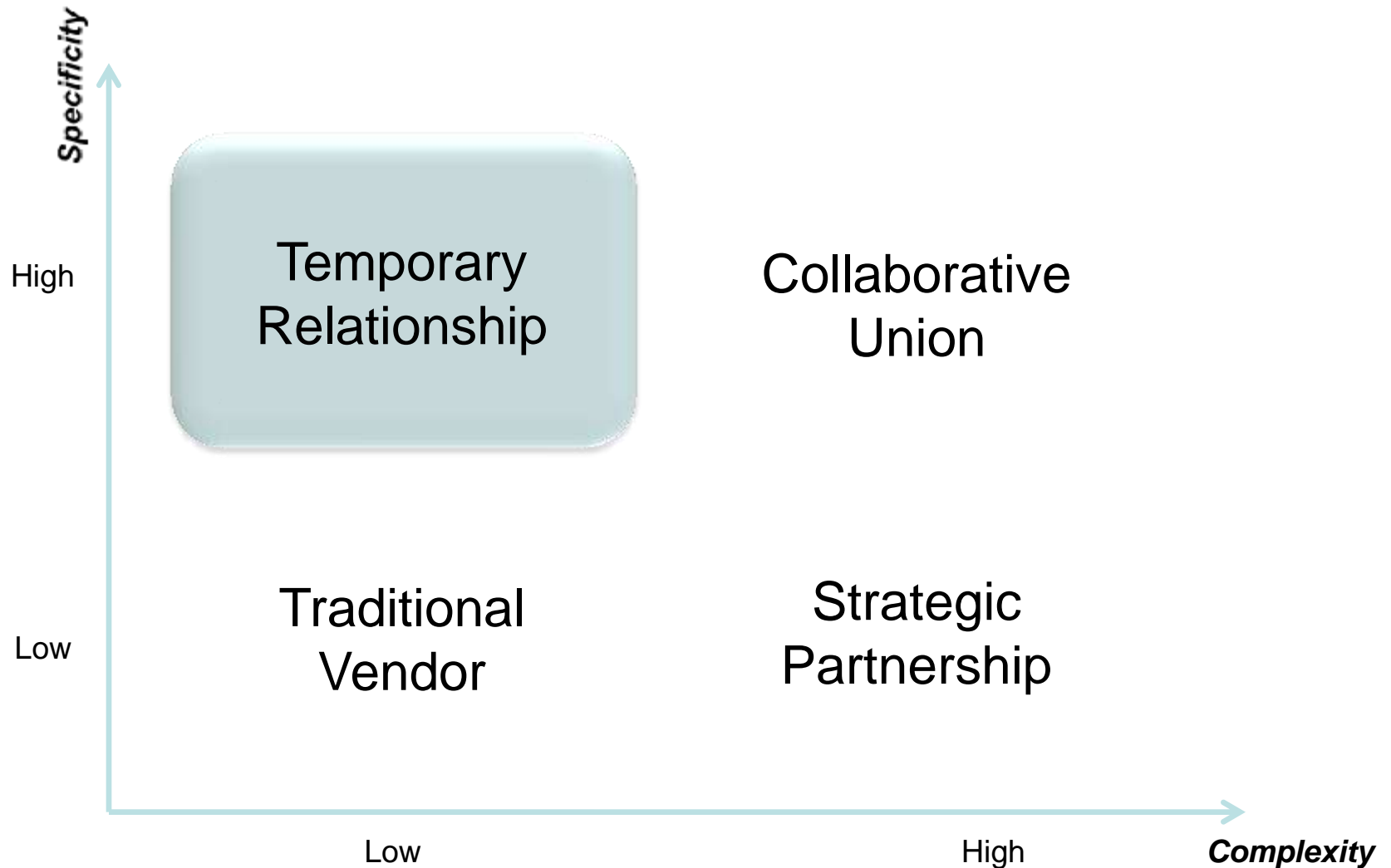
Present - Pharma

- Companies without internal capacity have reduced use of consultants and working more directly with CRO's. Internal experience in BioA has increased or is considered as not needing specialist consultancy.

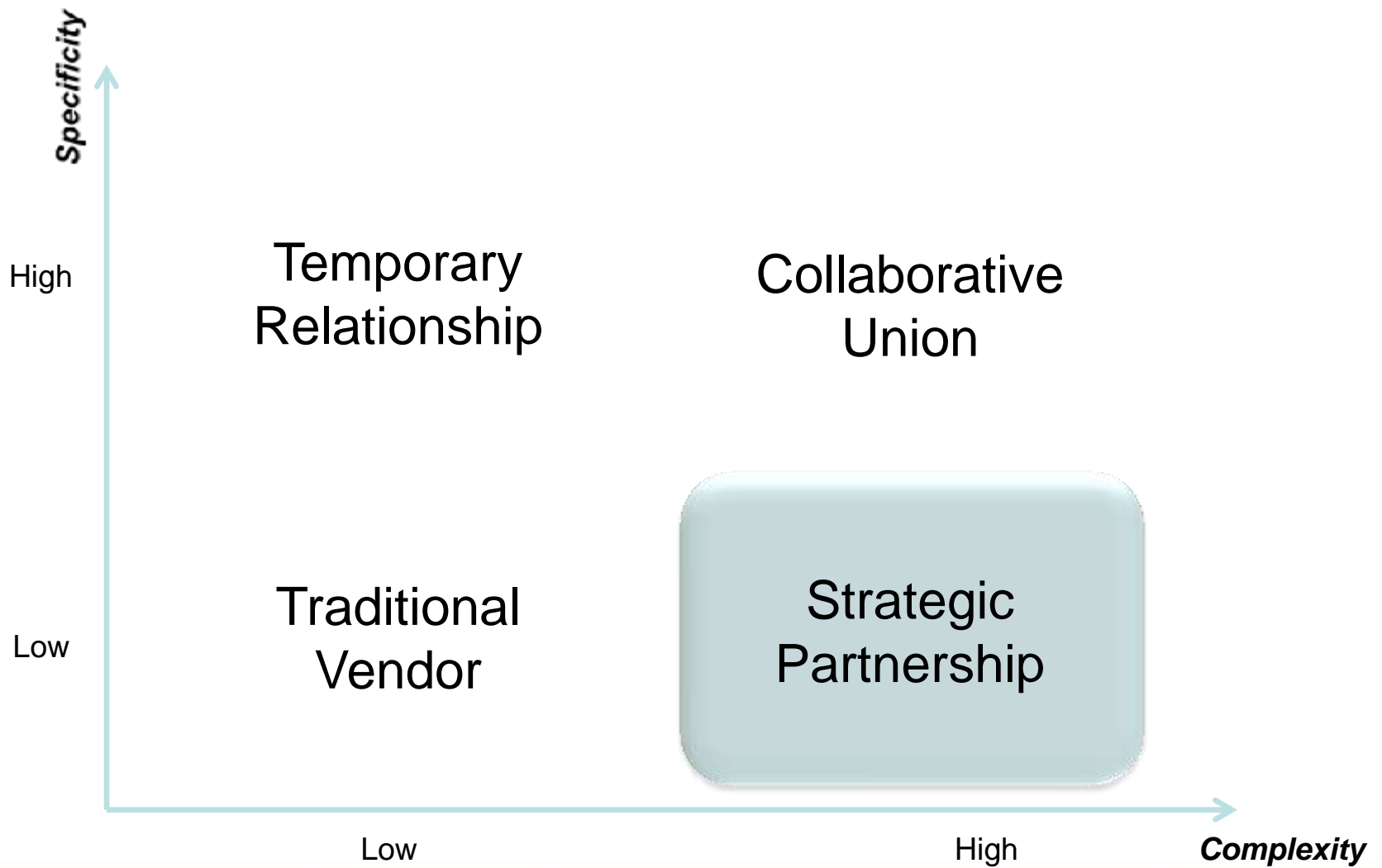
Present - CRO

- The CRO's are seeing increased involvement in the process from all companies, but especially companies without internal resource using CRO's to support scientific decisions.

Relationships in Discovery BioA



Relationships in Discovery BioA



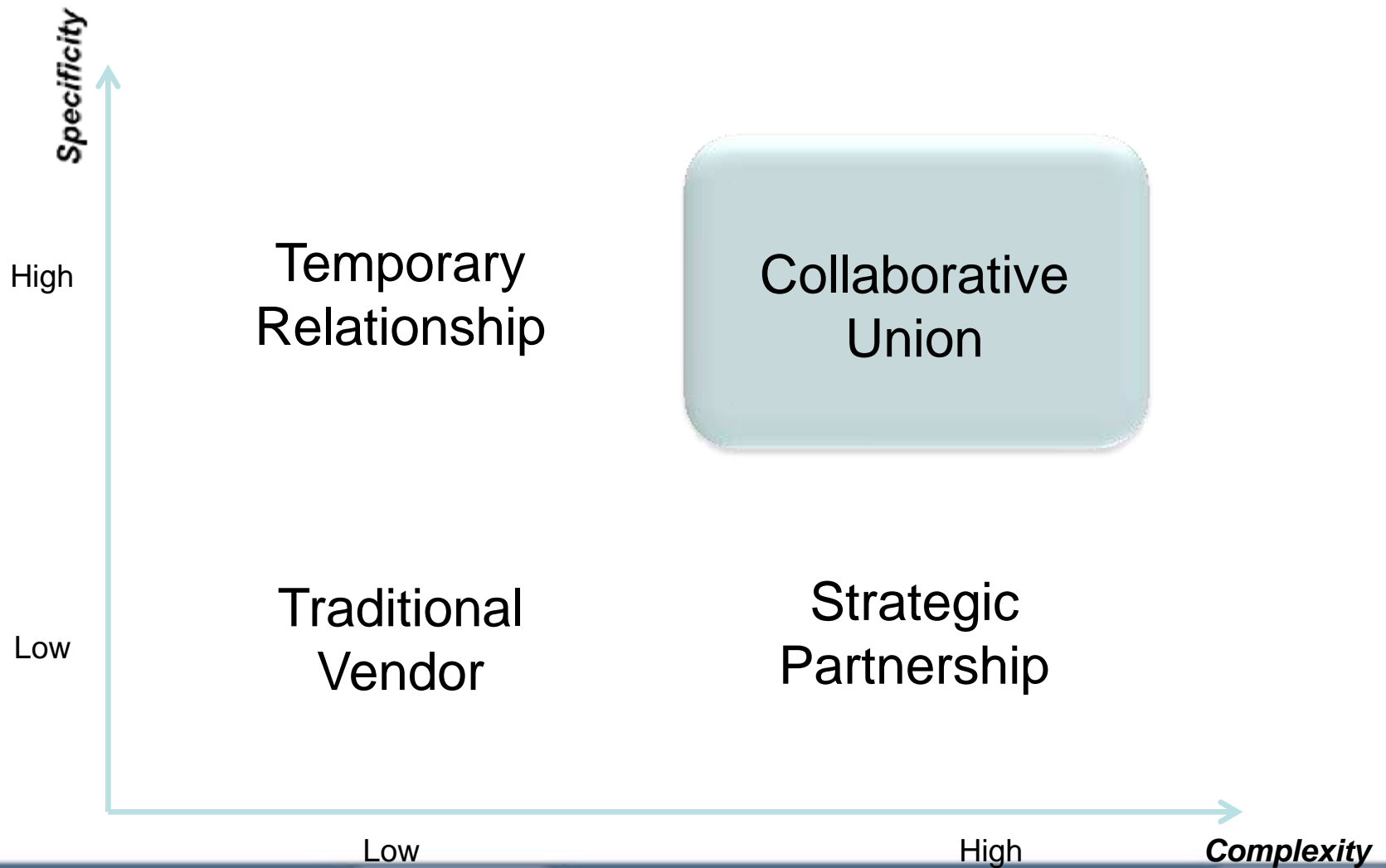
Future - Pharma

- Reduction of internal BioA resources and relying on CRO's more scientific support as well as capacity.

Future - CRO

- Increase in scientific complexity and requirement of studies seen.
- Increased requirement for innovation and development.

Relationships in Discovery BioA



Collaborative Union

- How do we make this work?
 - People
 - Relationships
 - Communication
 - Engagement
 - Responsibility
 - Respect
 - Failure
 - Team work

People

- No substitutes
 - Good scientists
 - Good people

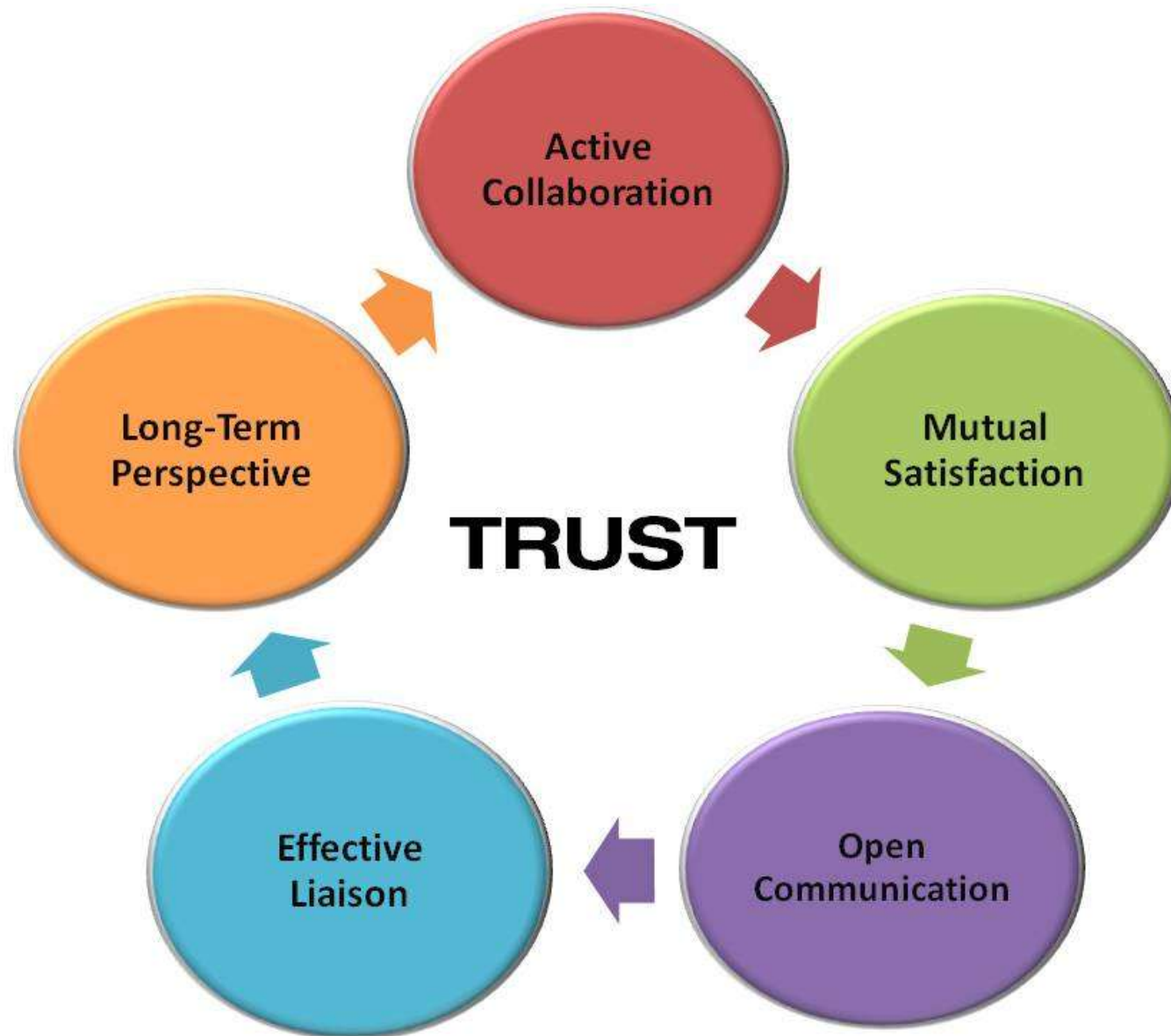
Relationships

- Know each other
- Mutual Trust

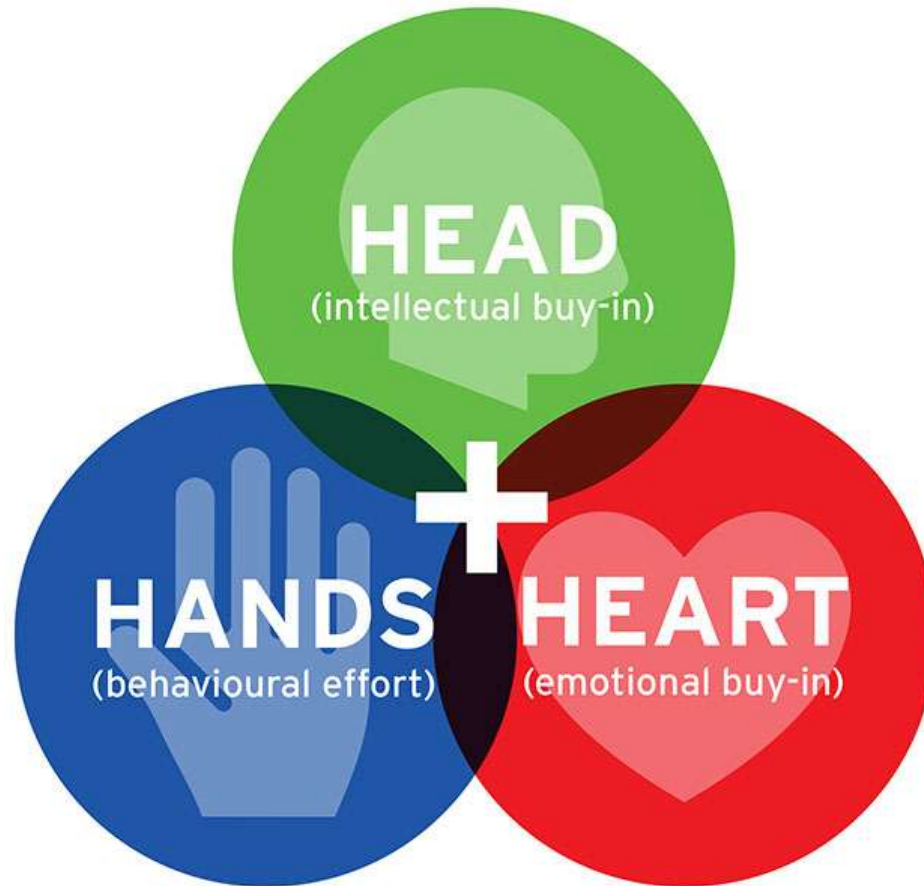


Communication

- Set the scope of the program (not the study)
- Understand the timelines
- Understand the decision making process
- Clear channels of communication



Engagement



Responsibility/Accountability

- Shared responsibility
- Clear accountability

Respect

- Both parties have to have complete trust and respect of each other.

Fear of Failure

- To ensure that scientifically we are doing the right thing we have to remove the fear of failure.
- Failure can come in many ways.
- A blame culture can not be allowed to exist.

Team Work

- If you have all of the above then you will get a strong successful team working on the program.

Case Study 1

- EarlyPK study.
- Non-glp analysis.
- Assay Qualified.
- First batch – incurred samples shows splitting peak not shown in the spiked samples.
- On the fly chromatography redeveloped and all samples analysed with a chromatography which separates the 2 peaks.
- Data reported and explained to client.

Case Study 2

- Early study in Dogs. Single analyte and LC-MS/MS assay. 400 samples from 3 dose levels. Samples over 24 hrs.
- Assay established and qualified before study
- Pressure to get data immediate sample available
- BA team put 2 analysts on it and run all samples immediately – Thursday.
- Friday data review – all batches meet acceptance criteria with no issues.....

Case Study 2

- On review of data the internal standard response in samples was 'slightly' different to the STD's and QC's.
- Contacted the client and explained that I could not release the data.
- Redeveloped and qualified the assay over the weekend and reanalysed all the samples
- Data set released on Monday morning
- Visit to client on Thursday to explain the data.

Case Study 3

- Assay transfer from Client.
 - Had met the client and been confident in their BA skills
- 2 analyte method which had been ‘developed’ and tested at client lab but not formally validated.
- Requested to see data and methodology to speed up the process
 - Received the method but no data
- Team started transfer – set up and tested method.

Case Study 3

- Method was inaccurate and imprecise. 3 batches run to test the method
- Method development chemist had reviewed and advised several issues and changes to method
- Client insisted we run the method as it had been established
- We shared our data and opened discussion with client.
- Method still would not work

Case Study 3

- Meth Dev Chemist set up and ran a different assay which met A&P requirements on initial testing
- Client did not appreciate us sending the data from the method we had set up
- Client decided to move the assay.....

Thoughts for the Day

- As the Pharma industry evolves it's Bioanalytical support models it is good to remember the CRO's have been routinely working with a wide variety of different models and relationships, so have to be very flexible.
- CRO's have to be aware of their responsibility to maintain scientific integrity – ahead of Metrics and KPI's.
- Engagement and relationships are critical to success in our ever changing environment.
- Internal and External – the same.