



ICI Process Control Standards and Nadcap® Casting Program Complementary Systems with Different Objectives

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ICI® Process Control Standards Mission Statement and Objective



The Mission of the Process Control Standards Subcommittee is to create, establish and summarize in a numerical manner an industry accepted method for evaluating the degree to which process controls are in place and utilized by the Precision Investment Casting foundry.

PCS was designed by foundries and suppliers to

- Enhance the Industry**
 - Effectiveness**
 - Profitability**
 - Overall performance**
- Provide foundries with a mechanism for self-evaluation as a means to facilitate continuous improvement**

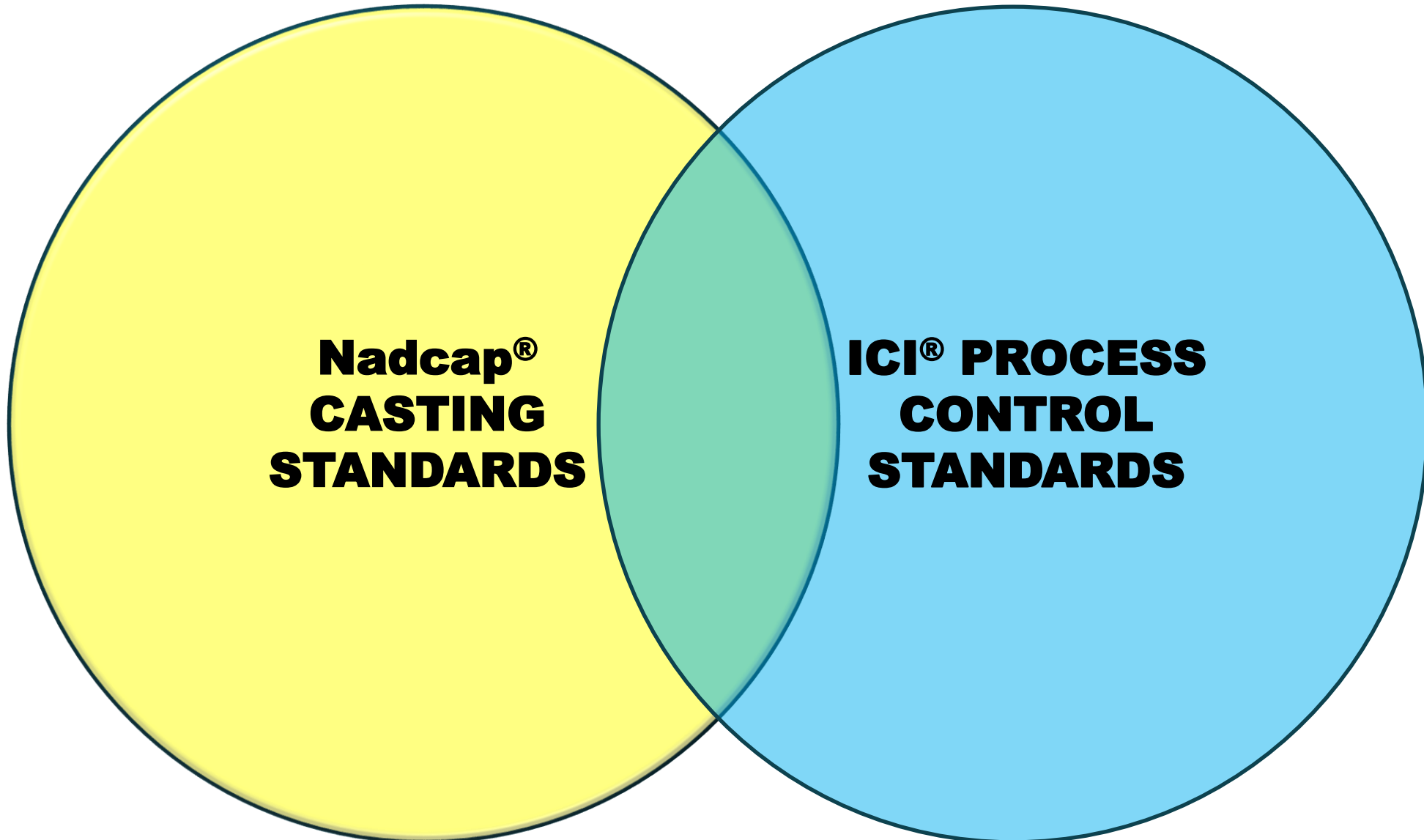
Brief overview of how it works



- A survey of a foundry's operational areas (wax, shell and foundry) and of the management team is conducted by a Process Control Certified Surveyor PCCS
- Scoring is done on both a qualitative and quantitative basis, addressing foundry applicable processes, equipment, policies and practices
- Certification recommendation is based on the degree to which the foundry is in compliance with what is considered an optimal implementation
 - Bronze – 40% compliant (self-certification by Internal PCCS)
 - Silver – 60% compliant (requires independent PCCS)
 - Gold – 80% compliant (requires independent PCCS)
- Certification recommendations are made by PCCS and are reviewed and approved by the ICI Process Control Certification Panel

So, how do the programs differ?

Venn Diagram Comparison of Both Programs



What do these programs have in common?



**Nadcap® CASTING
STANDARDS**

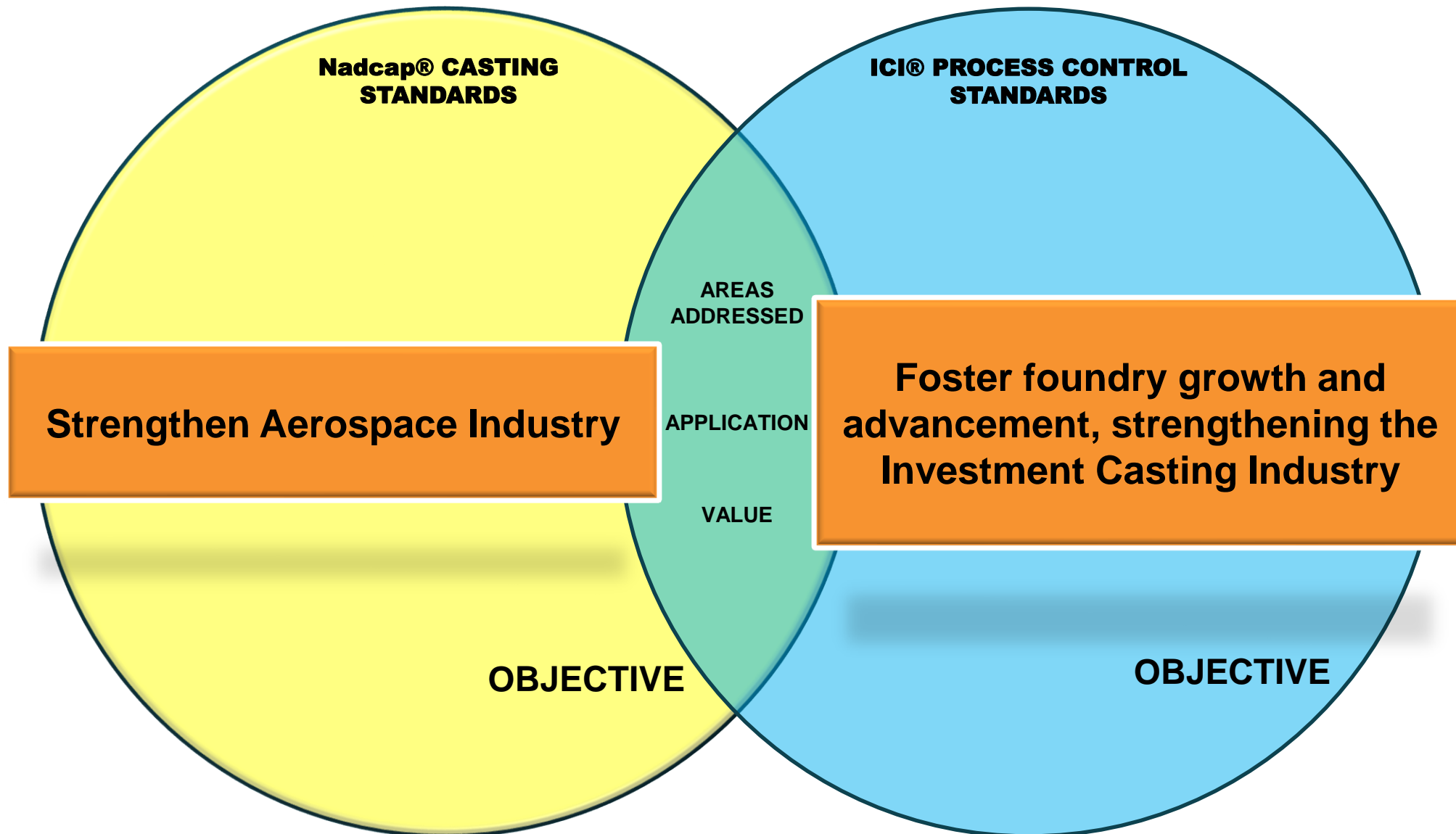
**ICI® PROCESS CONTROL
STANDARDS**

Both programs address Wax, Shell and Casting

Both programs have their place in industry

Both offer value to the users

What are the objectives of these programs?



Who designed these programs?



Nadcap® CASTING STANDARDS

Aerospace OEMs

- Airbus Commercial
- BAE Systems
- Collins Aerospace
- Honeywell Aerospace
- Leonardo Helicopters
- MBDA
- MTU
- Rolls-Royce
- Safran Group

AREAS
ADDRESSED

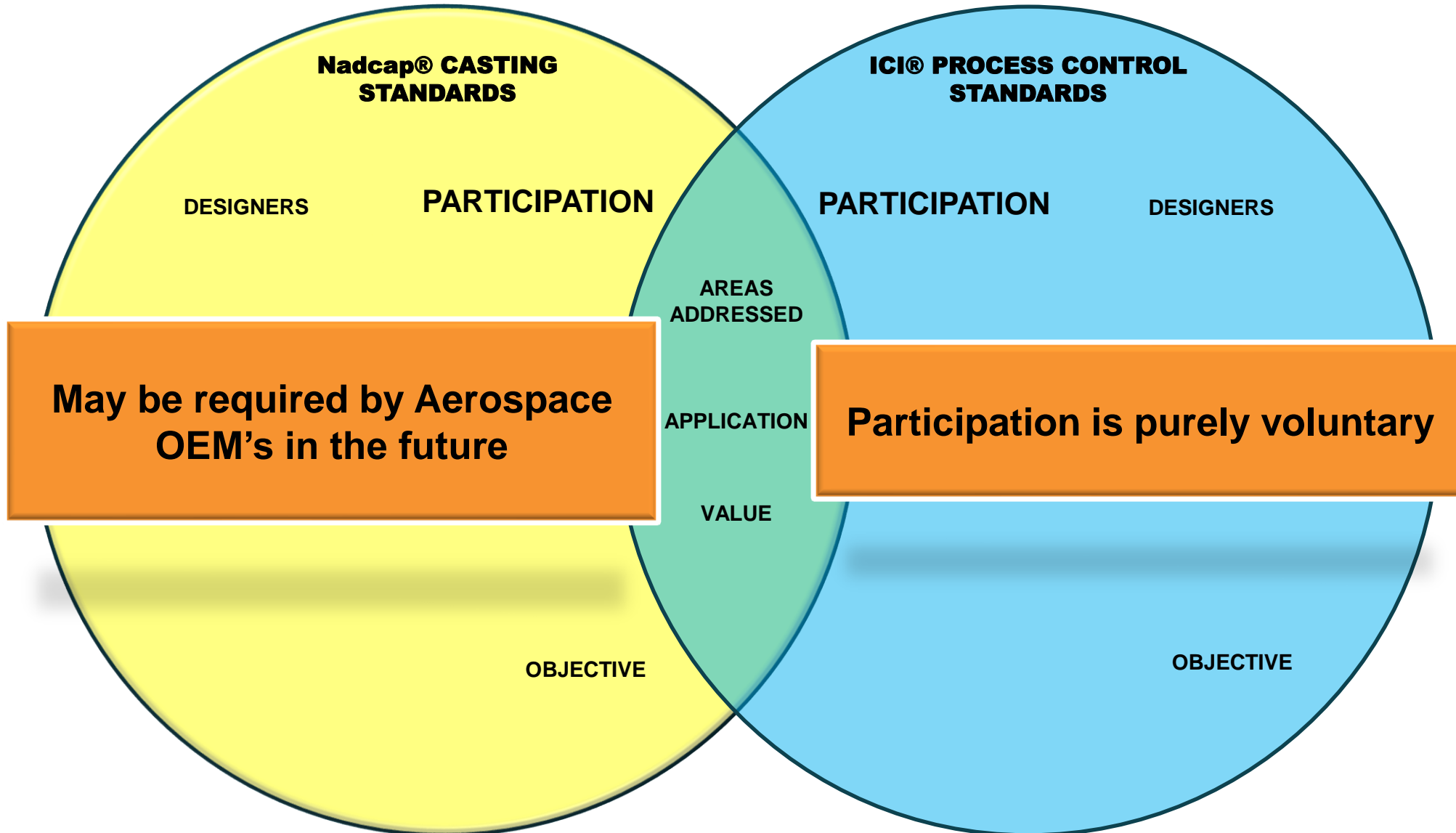
APPLICATION

VALUE

Current & Former Employees of:

- Bescast Inc.
- Ceramet – 3M
- Consolidate Precision Products
- Doncasters Group Ltd.
- ESCO
- General Electric
- Howmet Corporation
- Investment Casting Institute
- Kovatch Casting
- Paramelt
- Precision Castparts Corporation
- S&A Consulting Group Ltd.

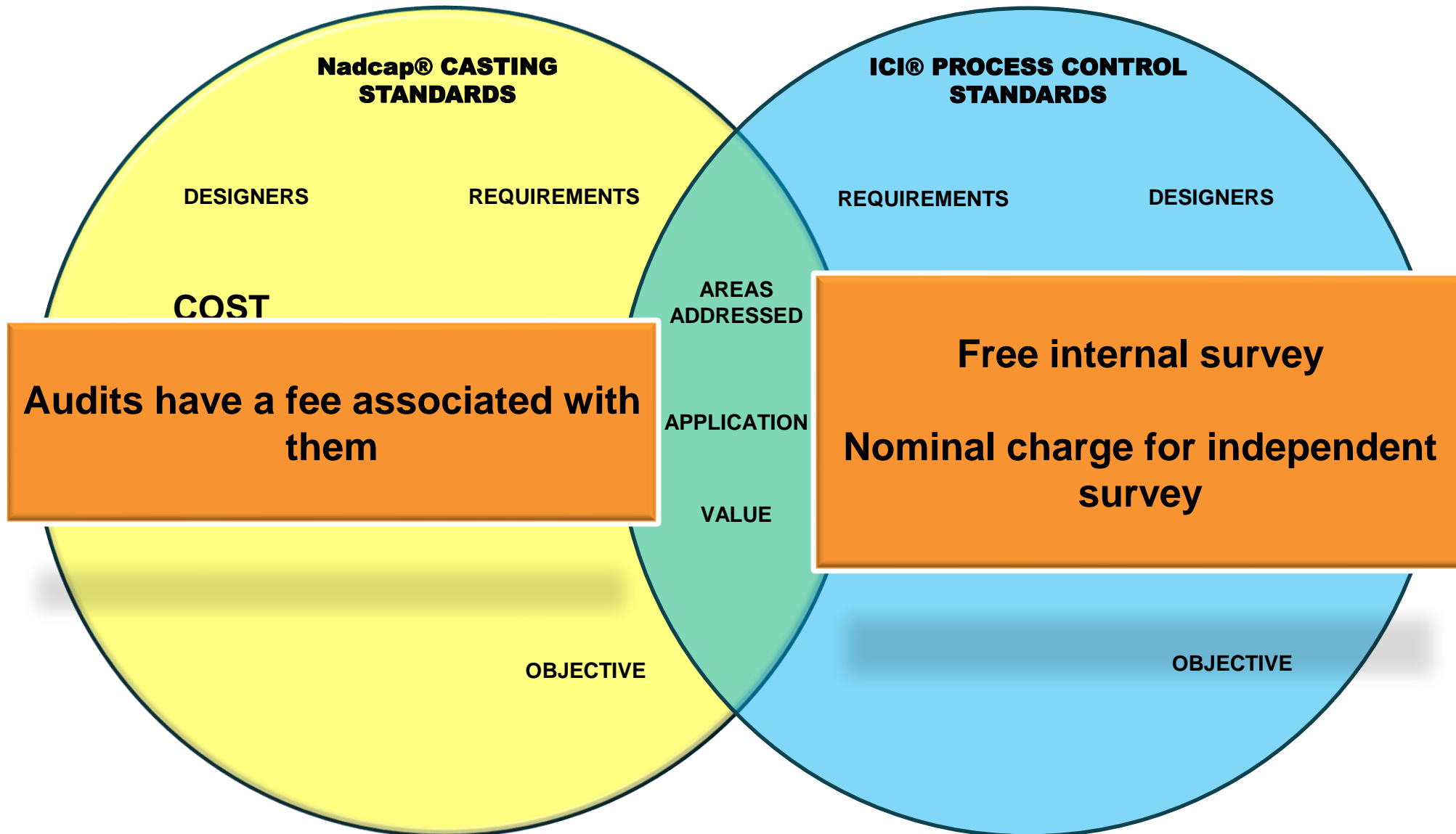
Is participation required?



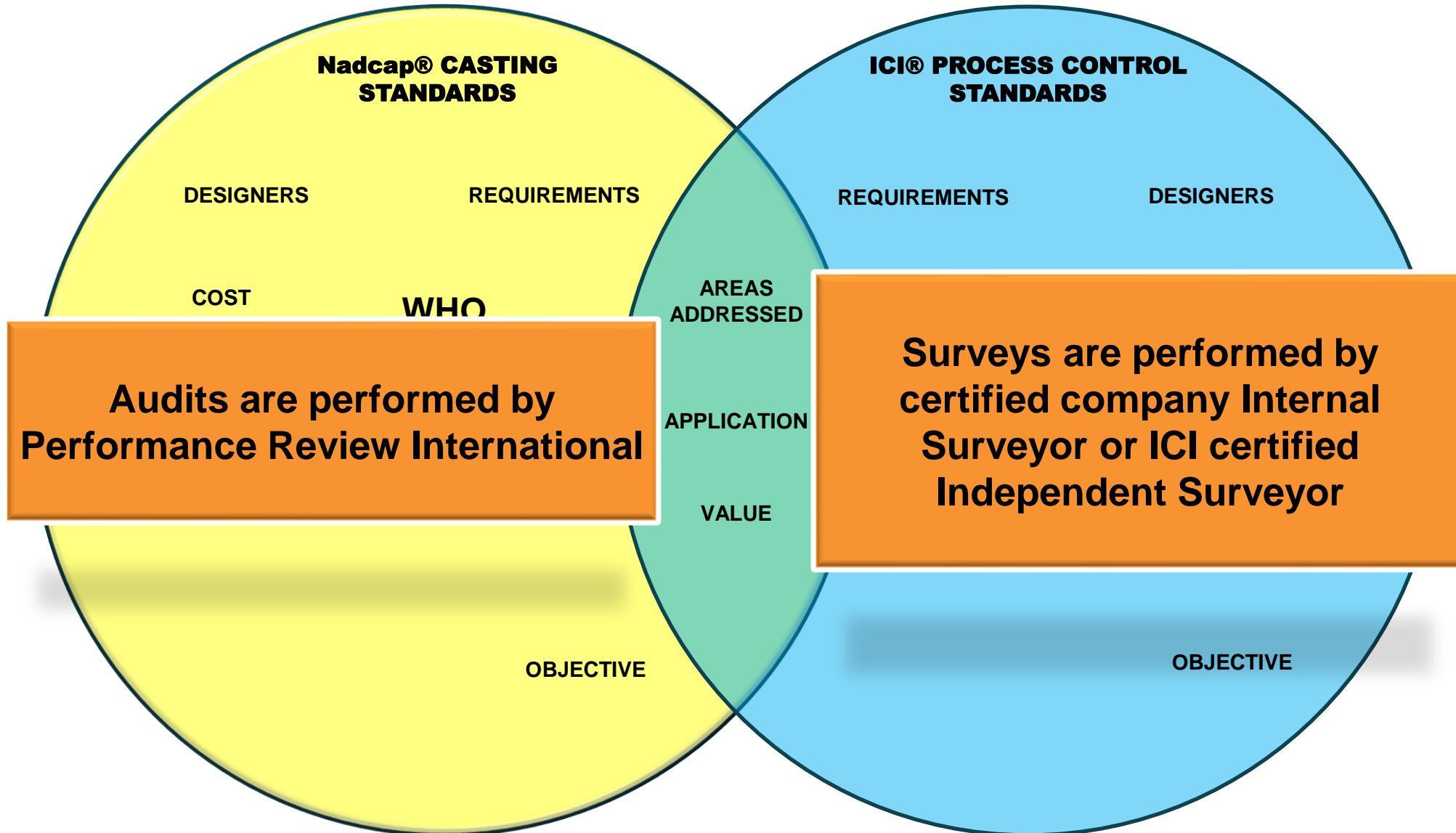
May be required by Aerospace OEM's in the future

Participation is purely voluntary

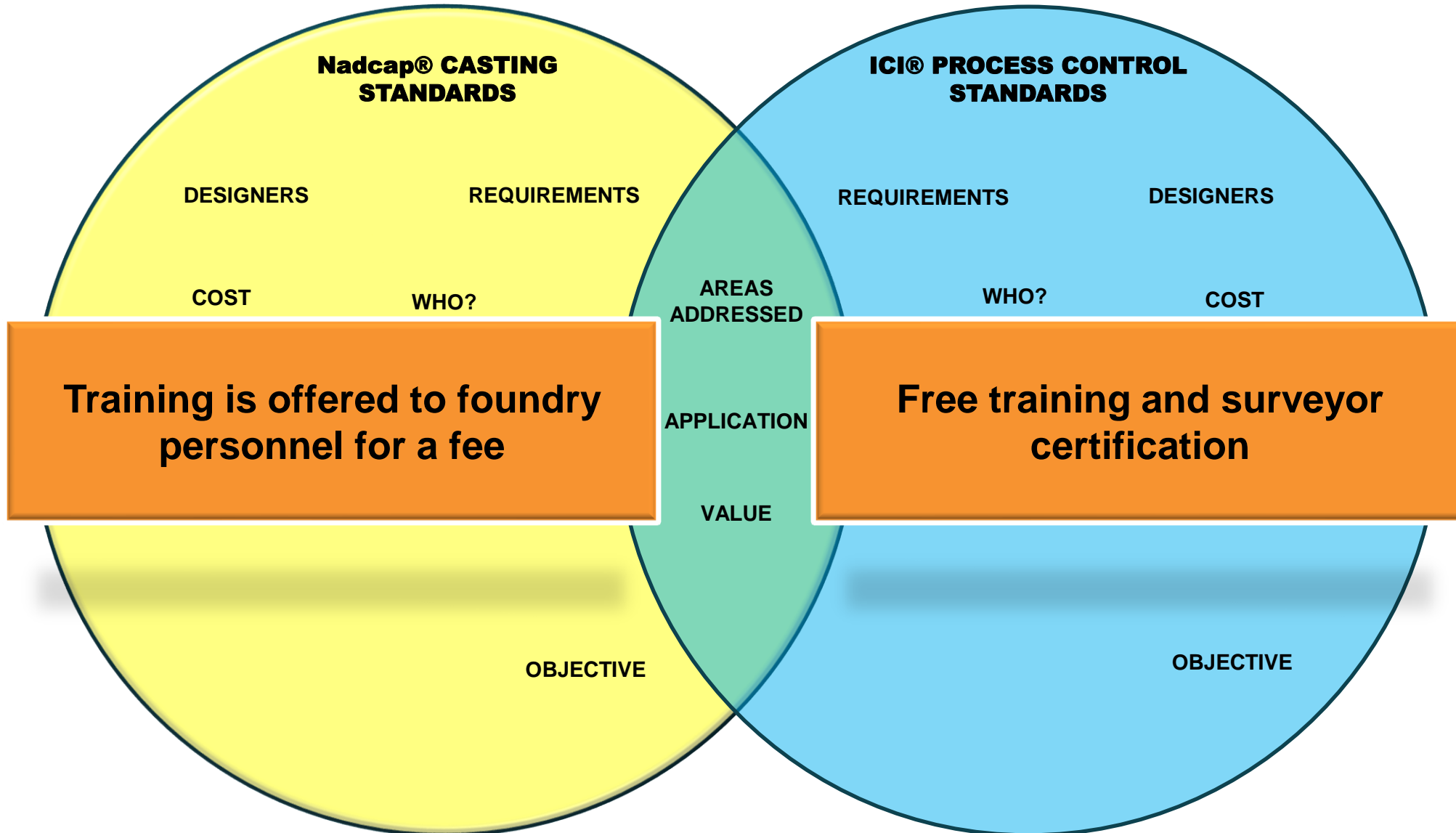
Is there a cost associated with the programs?



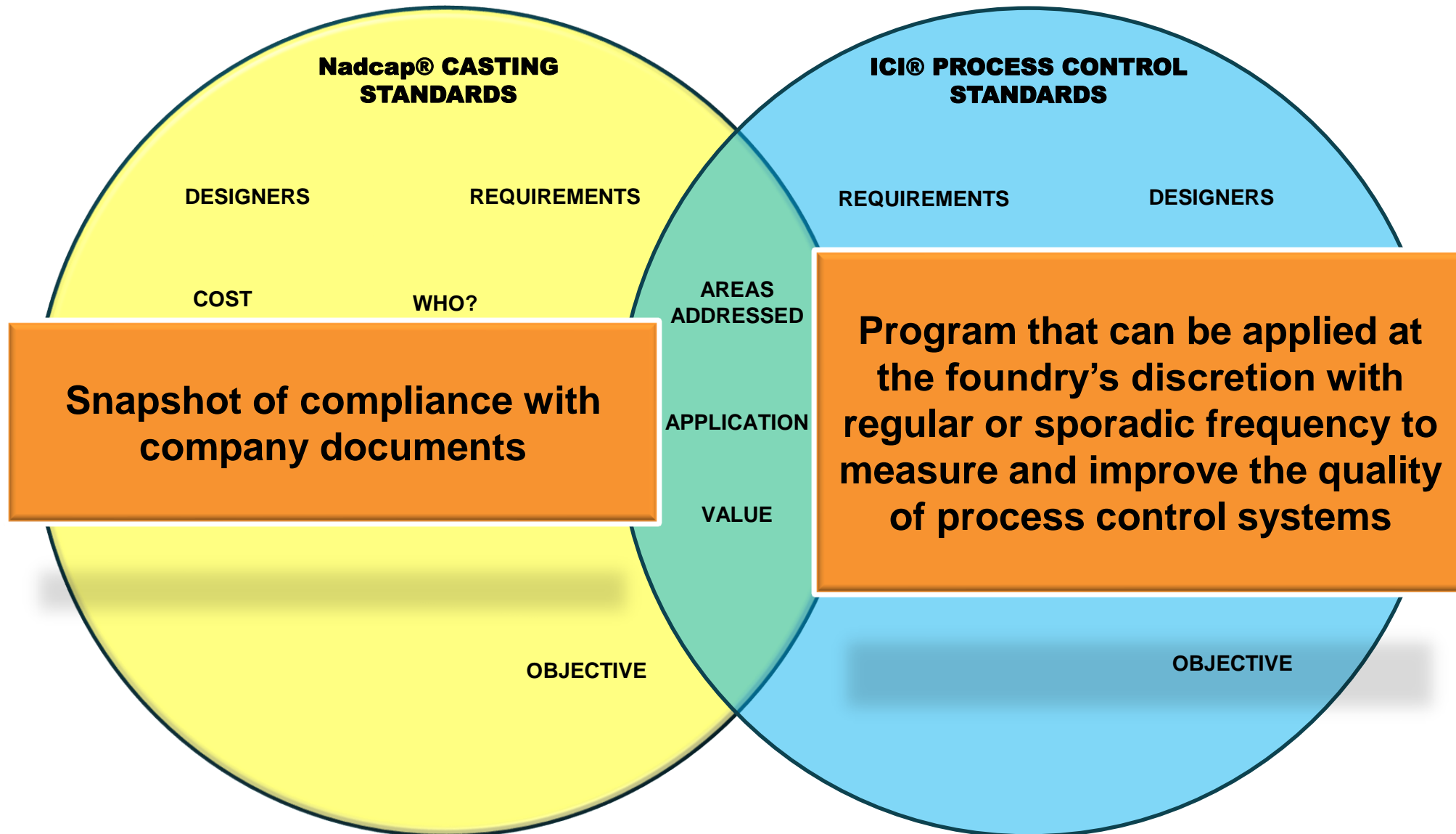
Who performs the evaluation on your foundry?



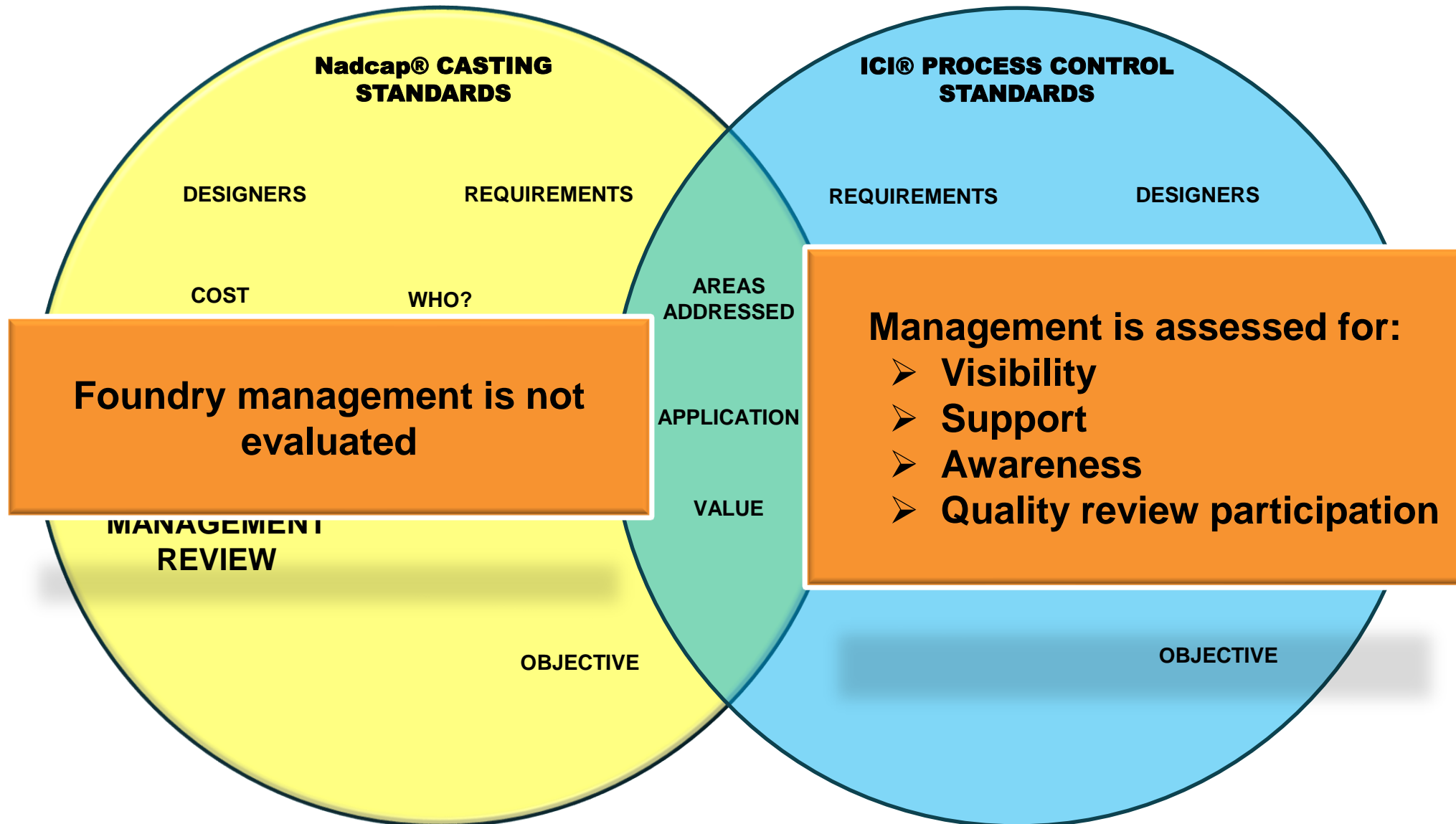
Is there any training associated with the programs?



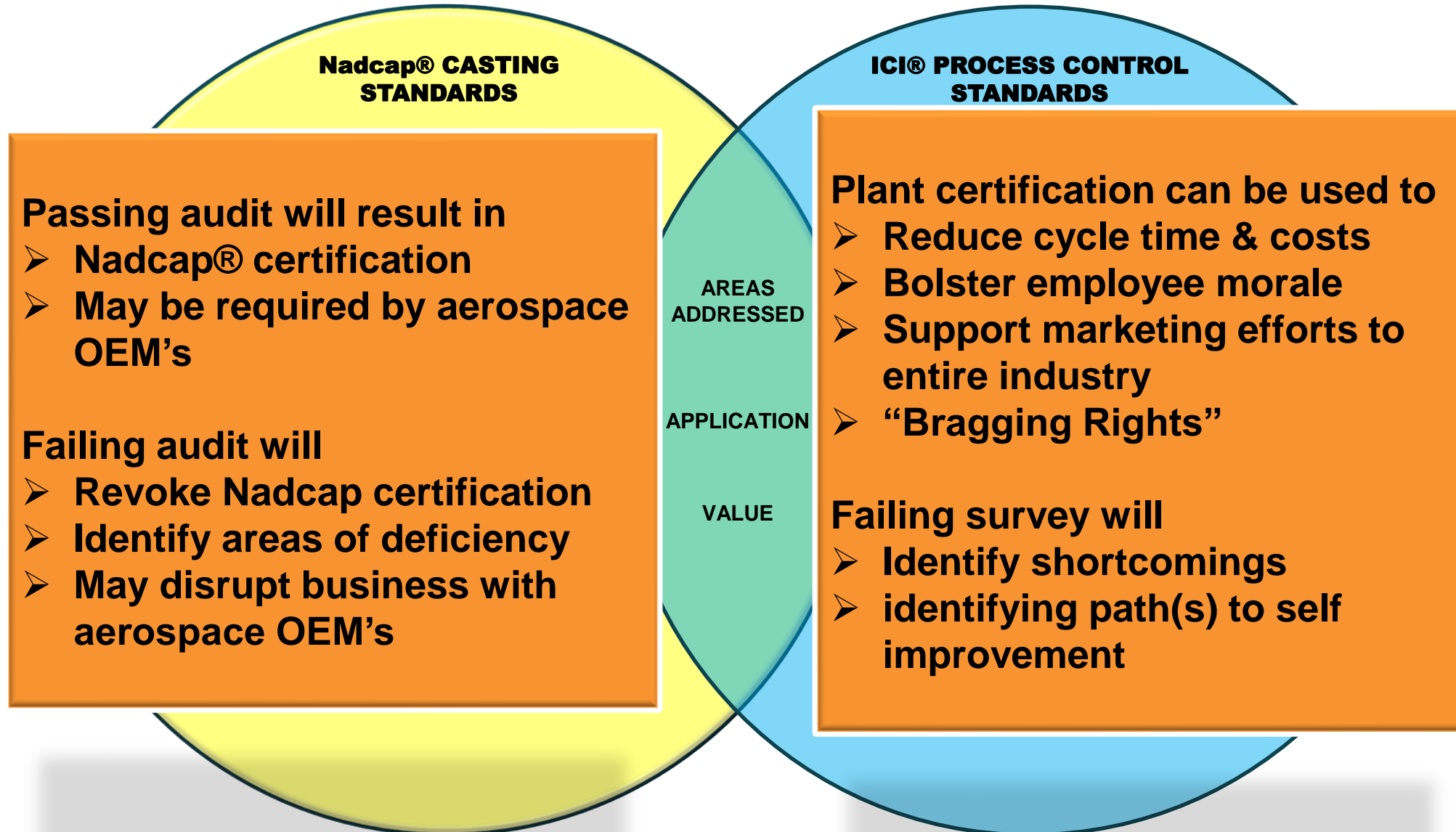
What are the deliverables of each program?



Are there assessments performed on foundry management?



How can foundries be impacted by the results of each program?



How do the program rating systems differ?

