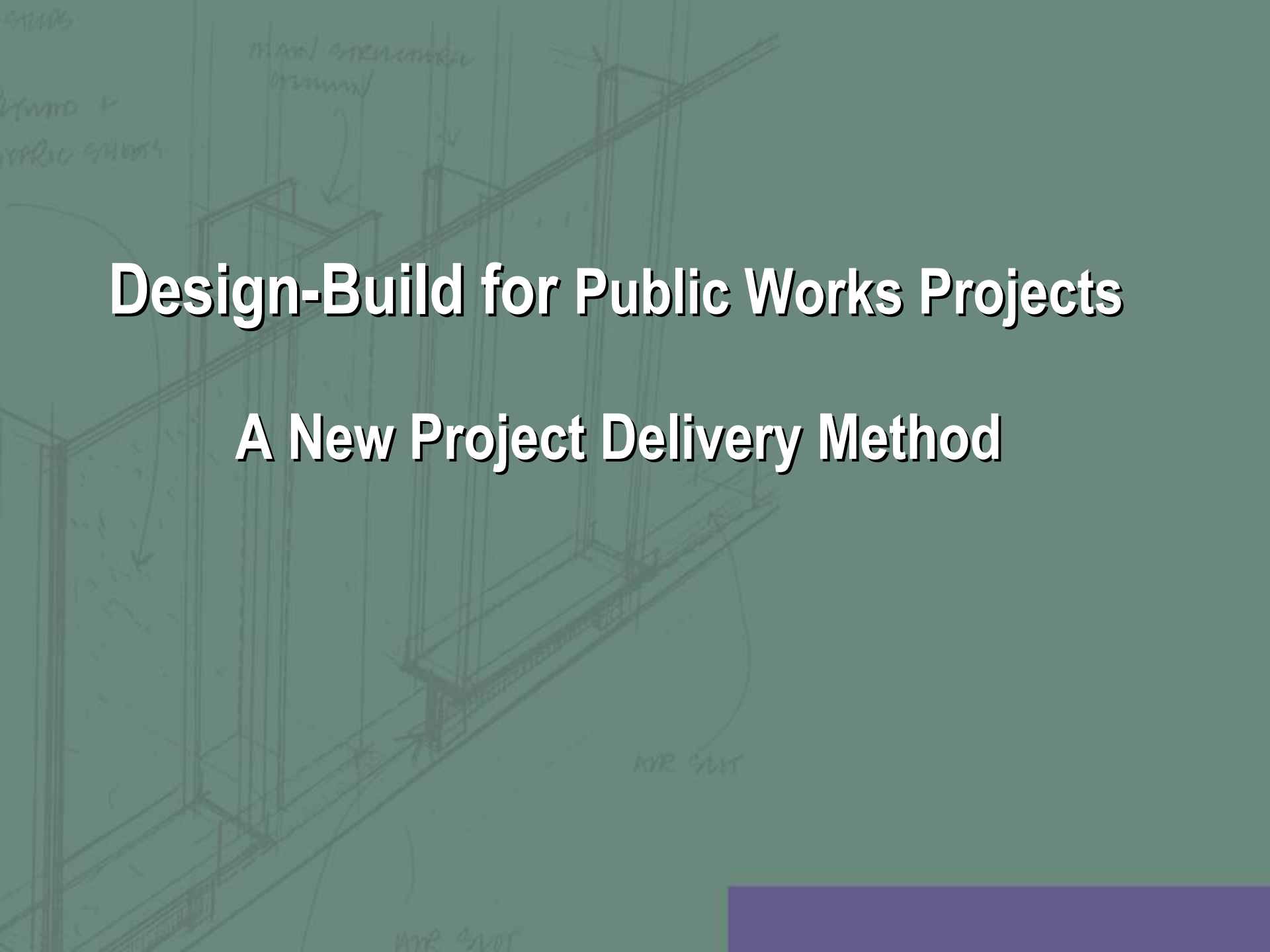
Design-Build for Public Works Projects

A New Project Delivery Method



Presentation Parts:

I. What is Design-Build?

II. Project Examples

III. Question and Answer Session

IV. Additional Considerations for Successful DB Projects

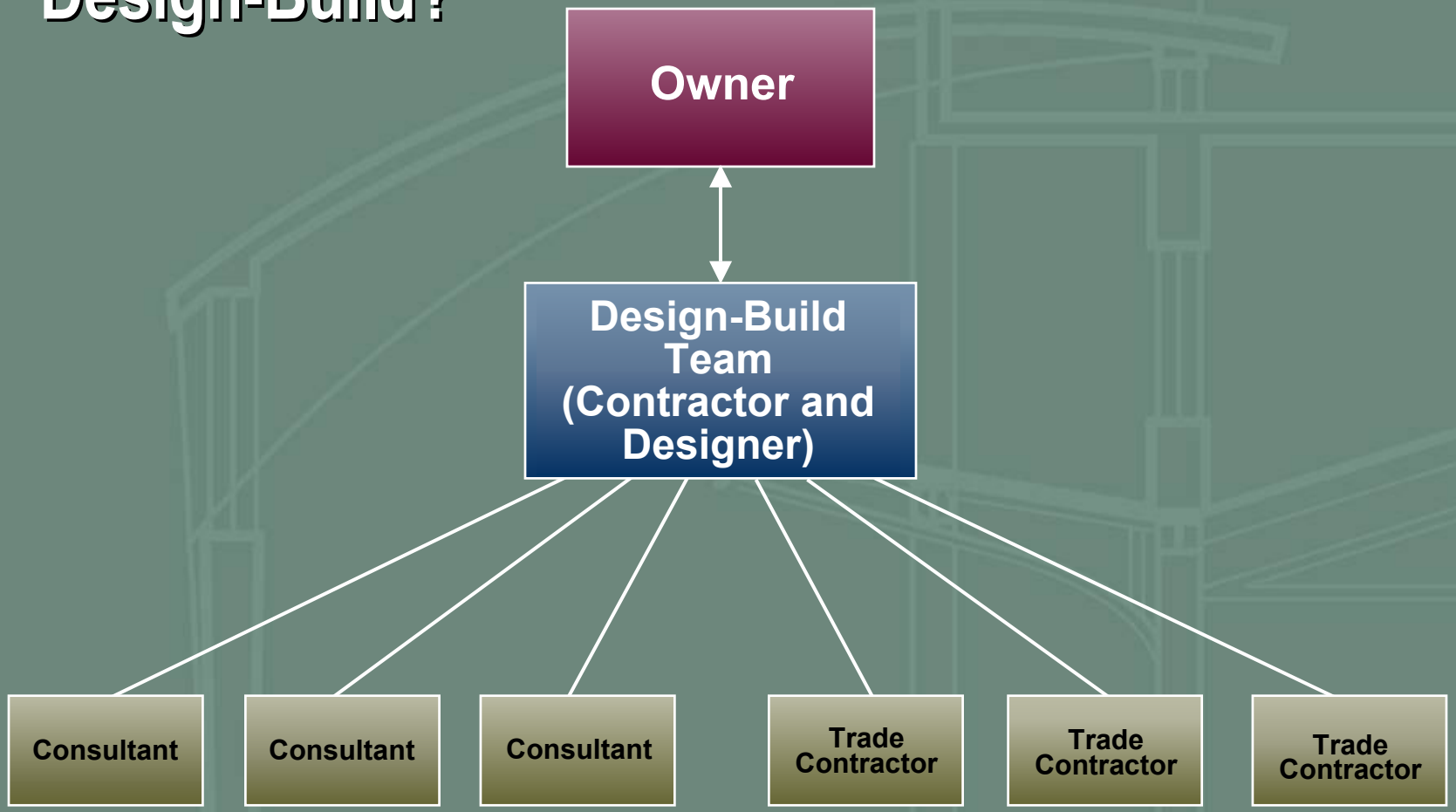
V. Question and Answer Session

Definition of Design-Build

A single organization offering both construction and A-E services through one contract to an Owner.

Proceeds in a quasi-parallel fashion; construction starts before design is completed, pricing occurs before/during design.

What is the Organizational Structure for Design-Build?



Why Consider Design-Build?

- Eliminates confrontation.
- Sets a “real budget”.
- Runs on “trust”.
- Does save “time”.
- Can save “dollars”, particularly for cash managing your overall capital budget.
- Can eliminate “change orders” and “claims”.

Design-Build

System strengths

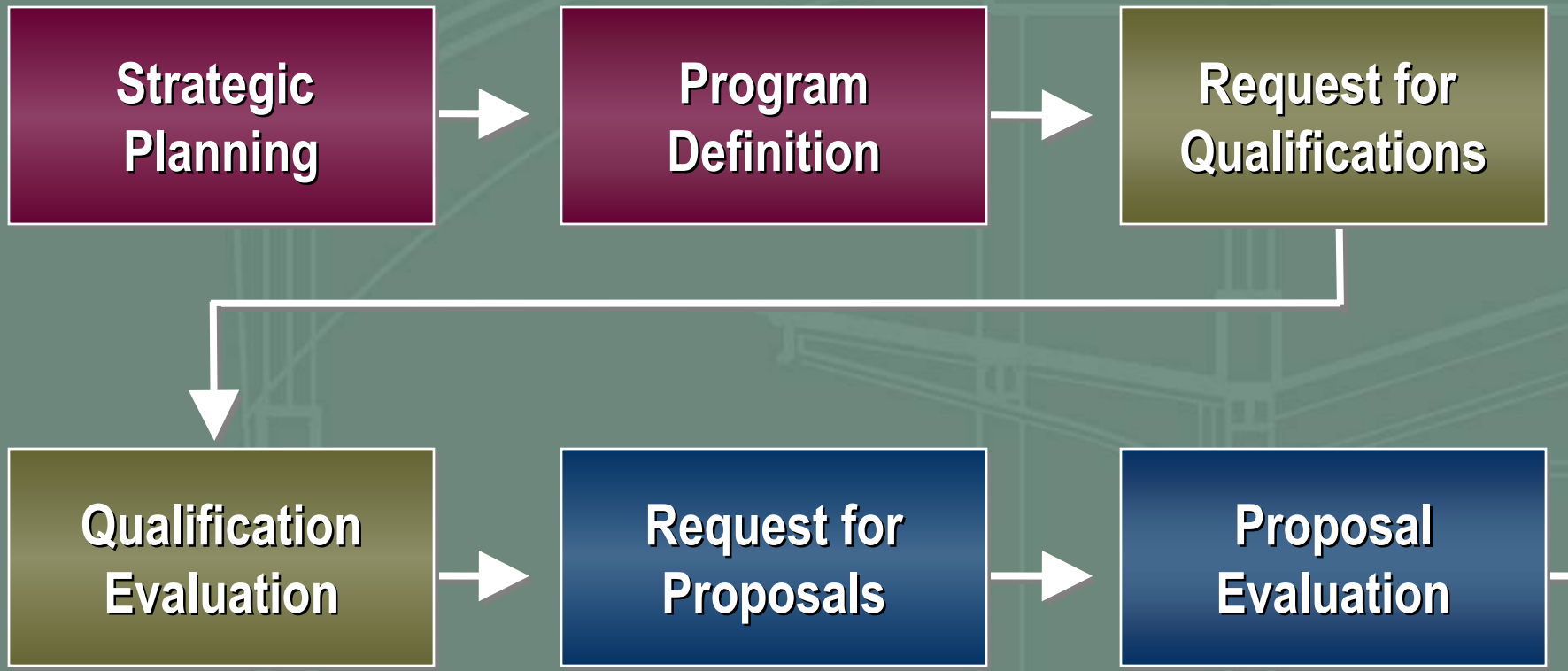
- Single point of responsibility
- Facilitates project financing
- Shorter time to develop project
- Total cost can be determined very early
- Design innovation more readily achieved
- High level of accountability can result in higher quality
- Potential construction cost savings
- Reduced conflict

Design-Build

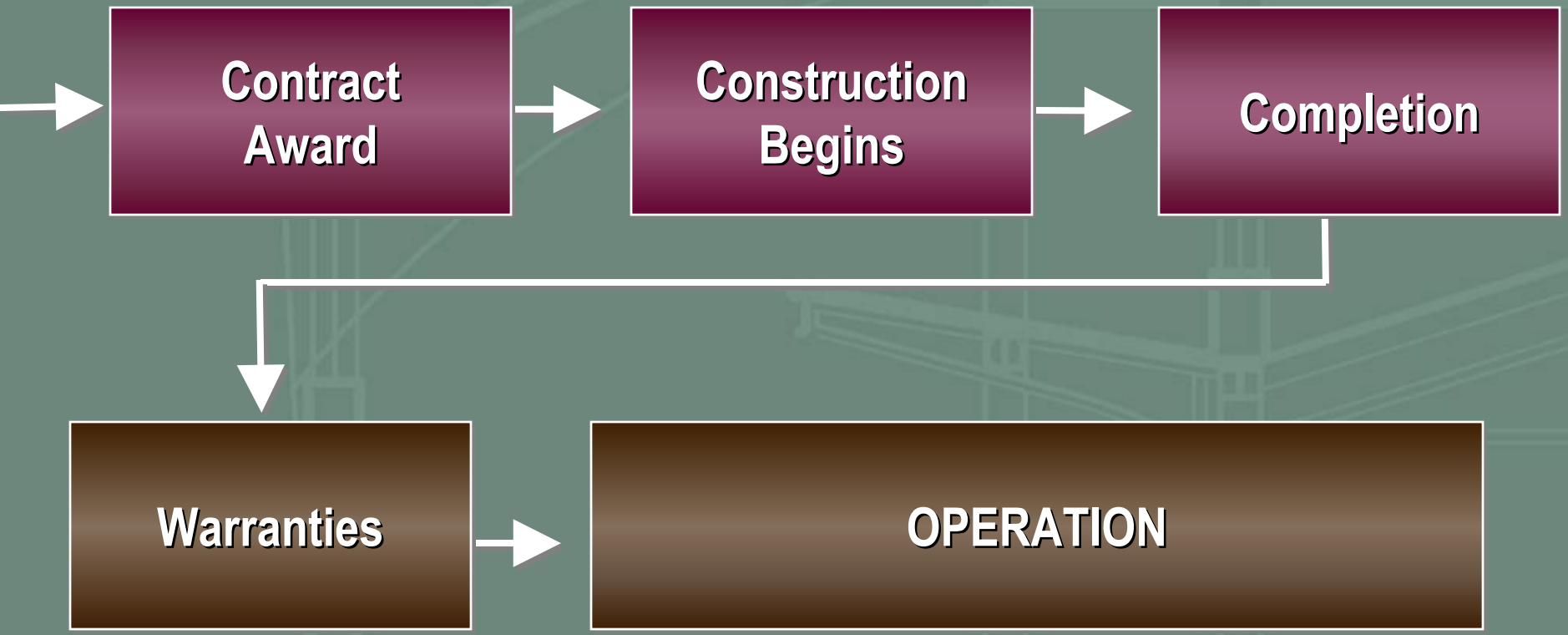
System weaknesses

- Time and cost of implementing competitive process
- Overly involved Owner may impact Design-Builder
- Price provided before design documents completed
- A/E doesn't work directly for Owner
- Constraints with public procurement laws
- Antiquity of licensing laws
- Unrealistic Owner expectations
- Lack of substantial judicial precedent

Overview of Design-Build Process



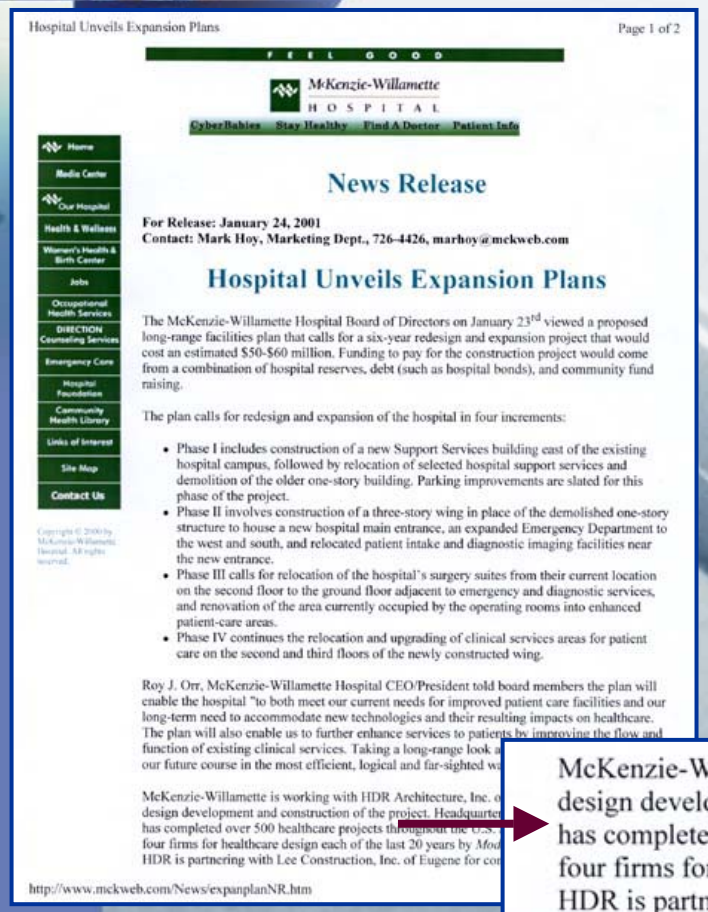
Overview of Design-Build Process



Typical Infrastructure Design-Build Projects

- Water and wastewater plants
- Wastewater collection
- Flood control
- Water distribution
- Highways
- Bridges
- Railroads
- Airports
- Hazardous waste cleanups
- Power

McKenzie-Willamette Hospital



Hospital Unveils Expansion Plans Page 1 of 2

FEEL GOOD

McKenzie-Willamette HOSPITAL

CyberBabies Stay Healthy Find A Doctor Patient Info

Home
Media Center
Our Hospital
Health & Wellness
Women's Health & Birth Center
Jobs
Occupational Health Services
DIRECTION Counseling Services
Emergency Care
Hospital Foundation
Community Health Library
Links of Interest
Site Map
Contact Us

News Release

For Release: January 24, 2001
Contact: Mark Hoy, Marketing Dept., 726-4426, marhoy@mckweb.com

Hospital Unveils Expansion Plans

The McKenzie-Willamette Hospital Board of Directors on January 23rd viewed a proposed long-range facilities plan that calls for a six-year redesign and expansion project that would cost an estimated $50-$60 million. Funding to pay for the construction project would come from a combination of hospital reserves, debt (such as hospital bonds), and community fund raising.

The plan calls for redesign and expansion of the hospital in four increments:

- Phase I includes construction of a new Support Services building east of the existing hospital campus, followed by relocation of selected hospital support services and demolition of the older one-story building. Parking improvements are slated for this phase of the project.
- Phase II involves construction of a three-story wing in place of the demolished one-story structure to house a new hospital main entrance, an expanded Emergency Department to the west and south, and relocated patient intake and diagnostic imaging facilities near the new entrance.
- Phase III calls for relocation of the hospital's surgery suites from their current location on the second floor to the ground floor adjacent to emergency and diagnostic services, and renovation of the area currently occupied by the operating rooms into enhanced patient-care areas.
- Phase IV continues the relocation and upgrading of clinical services areas for patient care on the second and third floors of the newly constructed wing.

Roy J. Orr, McKenzie-Willamette Hospital CEO/President told board members the plan will enable the hospital "to both meet our current needs for improved patient care facilities and our long-term need to accommodate new technologies and their resulting impacts on healthcare. The plan will also enable us to further enhance services to patients by improving the flow and function of existing clinical services. Taking a long-range look a
our future course in the most efficient, logical and far-sighted w

McKenzie-Willamette is working with HDR Architecture, Inc. o
design development and construction of the project. Headquarter
has completed over 500 healthcare projects throughout the U.S.
four firms for healthcare design each of the last 20 years by *Mod*
HDR is partnering with Lee Construction, Inc. of Eugene for co

http://www.mckweb.com/News/expanplanNR.htm

- Recently awarded contract
- $50 million estimated capital cost
- Expansion and renovation of existing hospital facility

McKenzie-Willamette is working with HDR Architecture, Inc. on the conceptual planning, design development and construction of the project. Headquartered in Omaha, Nebraska, HDR has completed over 500 healthcare projects throughout the U.S. and has been rated in the top four firms for healthcare design each of the last 20 years by *Modern Healthcare Magazine.* HDR is partnering with Lee Construction, Inc. of Eugene for construction of the project.

Bringing Benefits to Your Community with Design-Build

Water Treatment Plant Expansion for Town of Erie

- 8 months start to finish
- $2.4 million total cost
- Client:

  Town of Erie, CO

Blue Lake Biosolids Stabilization Facility

- 22 months start to finish
- Finished 9 months ahead of contract
- $13.6 million total cost
- Completed 50% below owner's budgeted cost
- Client:

  New England Fertilizer Co.
- Owner:

  Metropolitan Council Environmental Services

  Minneapolis, MN

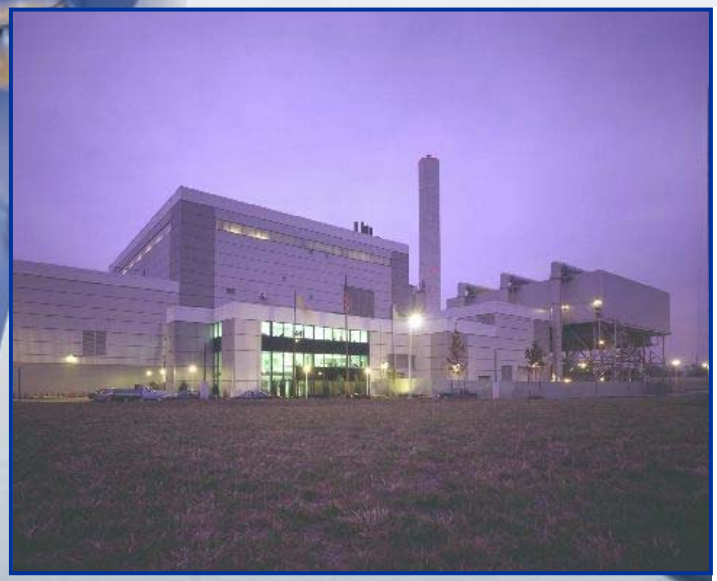
Bringing Benefits to Your Community with Design-Build

Lake Texana to Corpus Line

- 18 months start to finish and on schedule
- $96 million total cost
- $5 million below budget
- Client:

  Port of Corpus Christi Authority,Texas

Union County Waste-to-Energy



- 31 months start to finish
- $186 million total cost
- Client:

  Union County Utilities Authority, New Jersey

Beaver Lake WWTP and Water System Improvements

- 12.5 months start to finish
- $1.26 million total cost
- Client:

  Beaver Lake Association

Corona WWTP

- 17 months start to finish
- $4 million total cost
- Client:

  City of Corona, CA

Anton Anderson Memorial Tunnel

- 3 years start to finish, completed 18 months ahead of schedule
- $50.2 million total cost
- Client:

  State of Alaska – DOT

Again, Why Consider Design-Build?

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Questions and Answers

Selection and Evaluation Options

- Weighted criteria
- Adjusted low bid
- Equivalent design/low bid
- Fixed budget/best design
- Meets criteria/low bid
- Sole source

Ten Keys to a Successful Design-Build Project

1. Set aside “as we’ve always done it” mindset
2. Pre-qualify offerors/proposers
3. Conduct a balanced evaluation
4. Ask for reasonable proposal submissions
5. Develop clear project performance specifications

Ten Keys to a Successful Design-Build Project

6. Limit early design in RFP
7. Adequate experience preparing design-build RFQs and RFPs
8. Conduct separate evaluation of cost and qualitative issues
9. Use lump sum contracts
10. Use documents and design concepts from unsuccessful proposers only with permission

Is Design-Build for Every Project?

No! Best used on projects meeting 1 to 4 of these criteria:

1. Time: Have tight schedule.
2. Cash Flow: Maintain a set budget number.
3. Single Point of Responsibility: Want one contract.
4. Quality: Want performance; not confrontation with designer and builder.

Statistics from Construction Industry Institute Research Study

- Completed in 1996
- Surveyed 328 projects

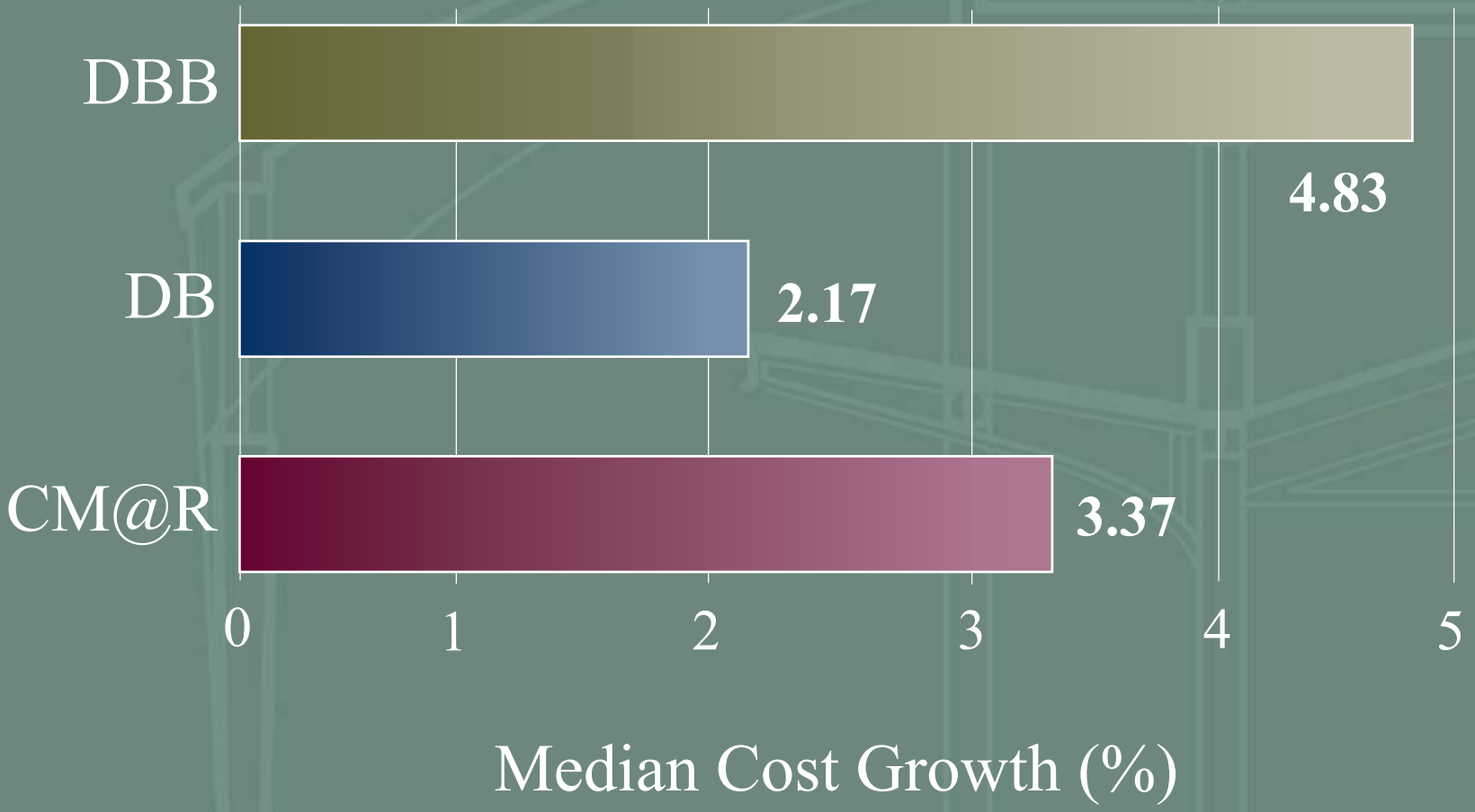
Design-Build in the Public Sector

Construction Industry Institute study indicates design-build has a significant advantage over design-bid-build in the following areas:

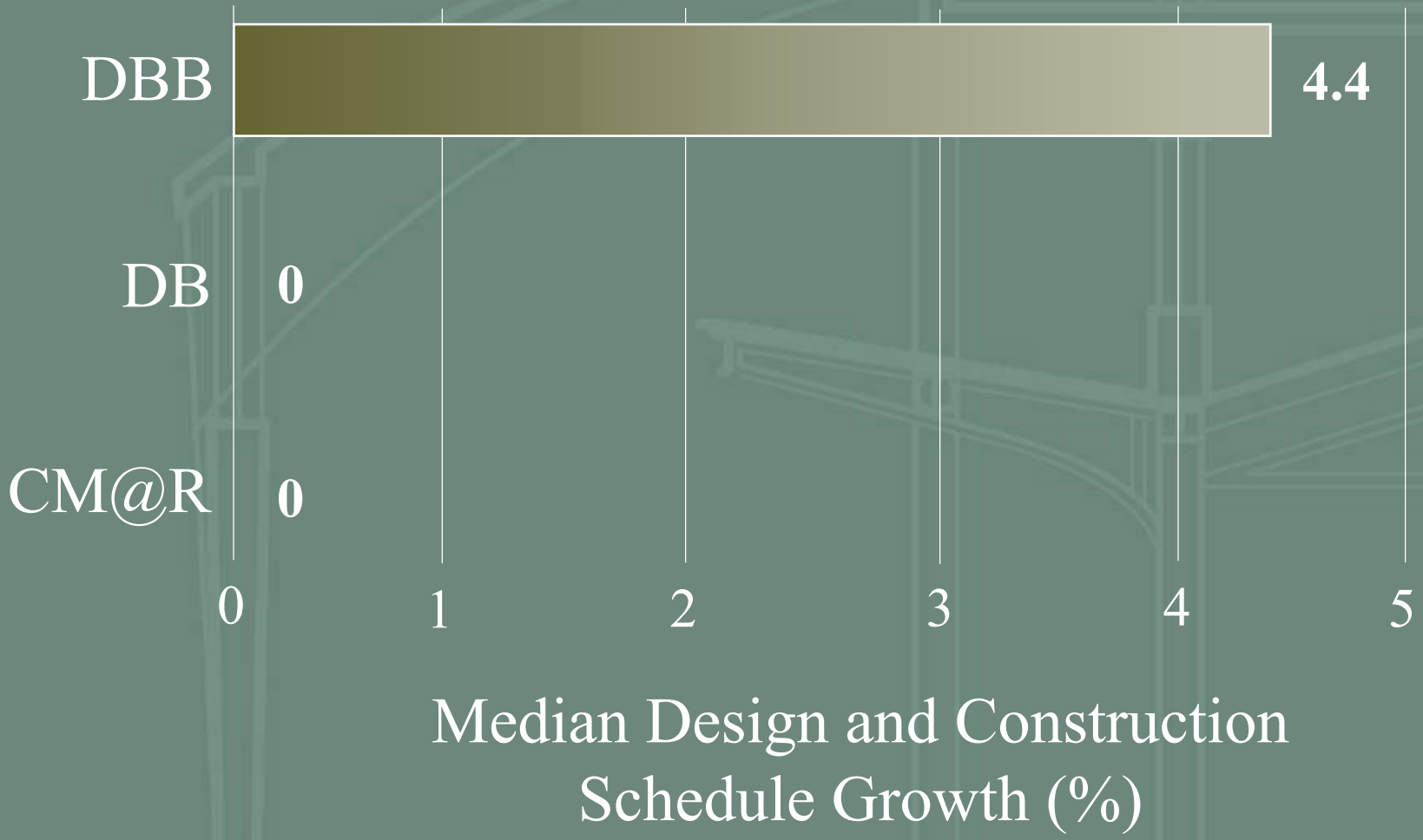
- Schedule Growth
- Construction Speed
- Turnover Quality
- System Quality

…..every case indicated alternative delivery system exceeded performance (customer satisfaction) over the traditional design-bid-build process…..

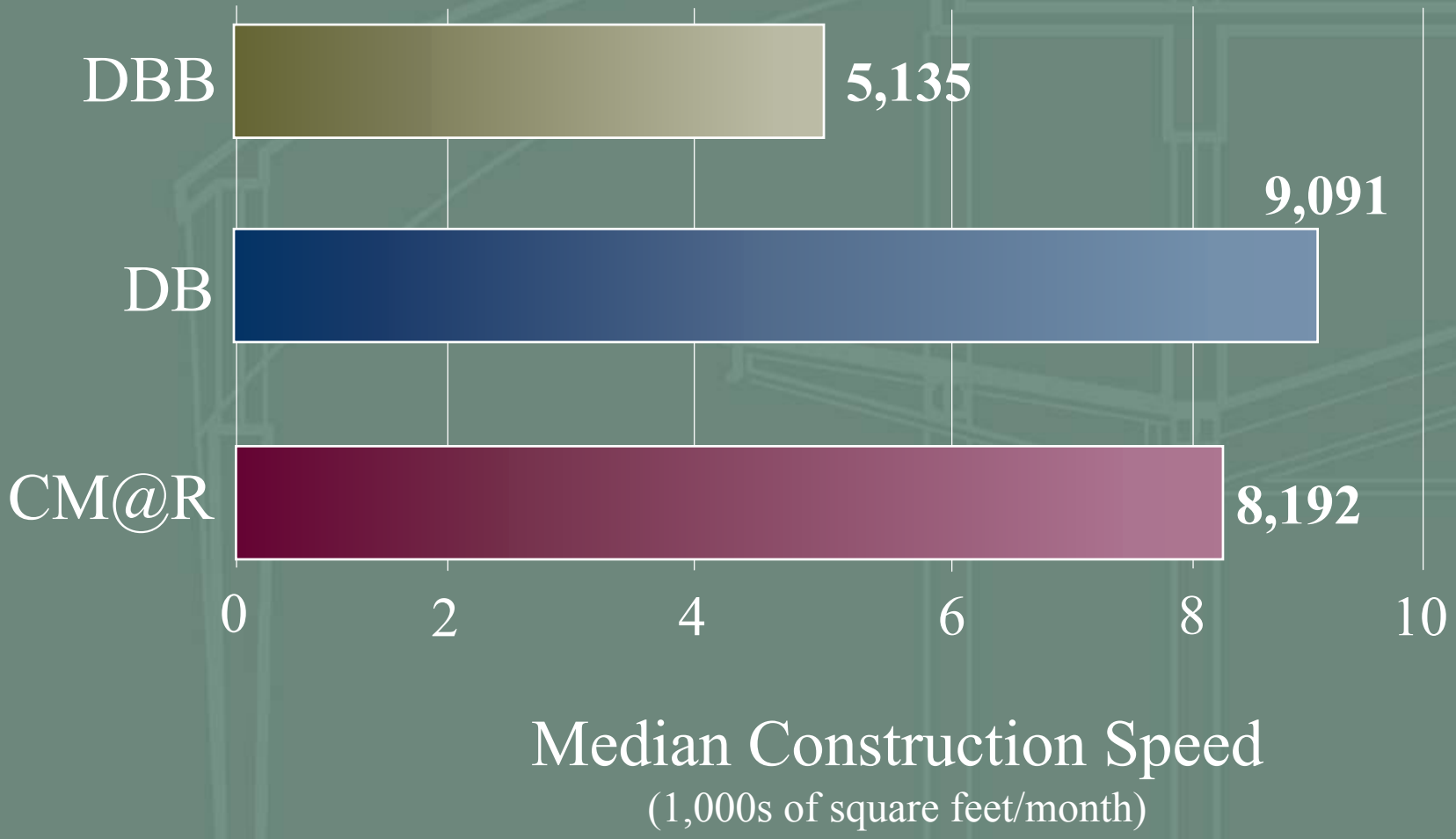
Design and Construction Cost Growth



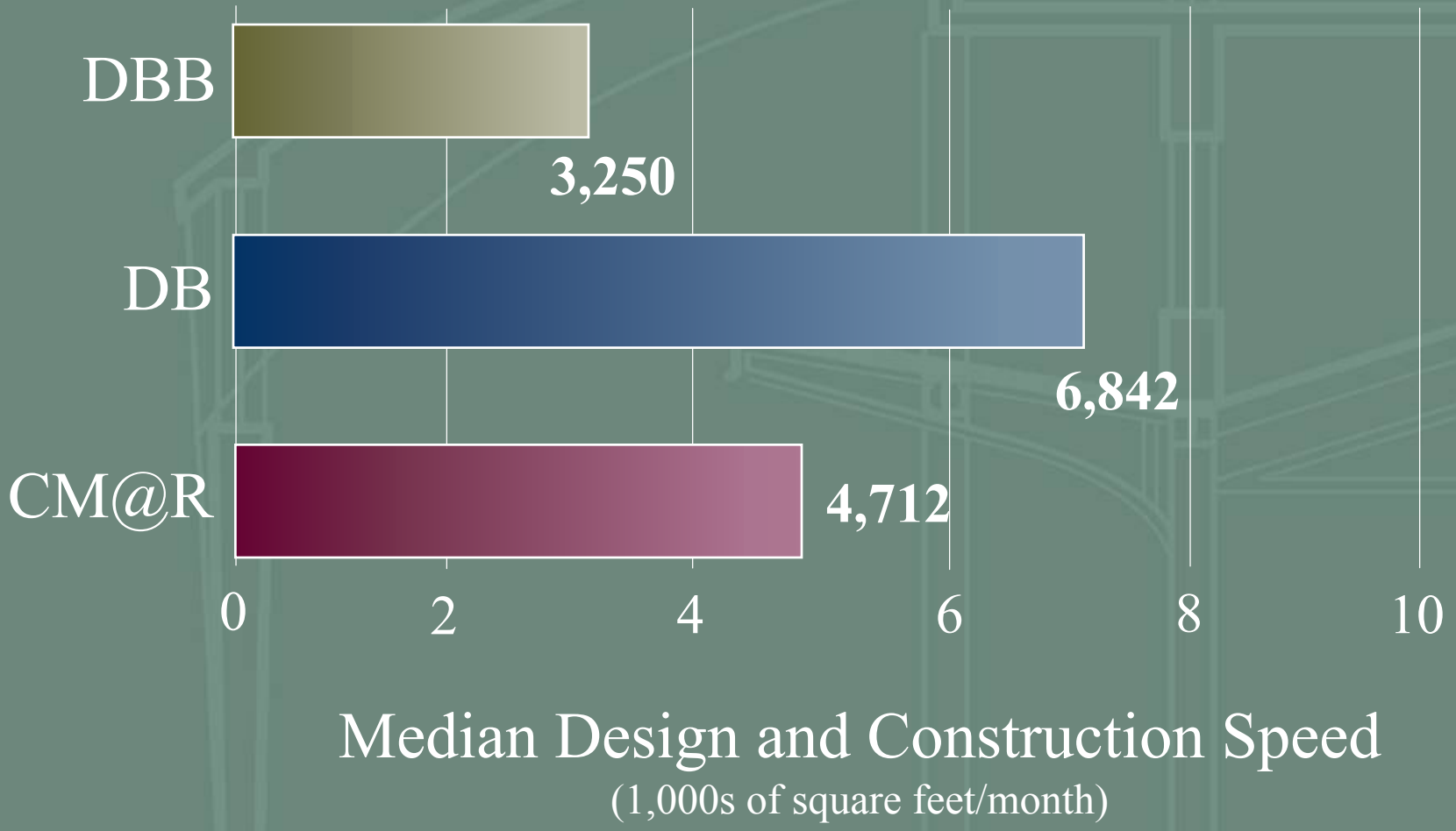
Design and Construction Schedule Growth



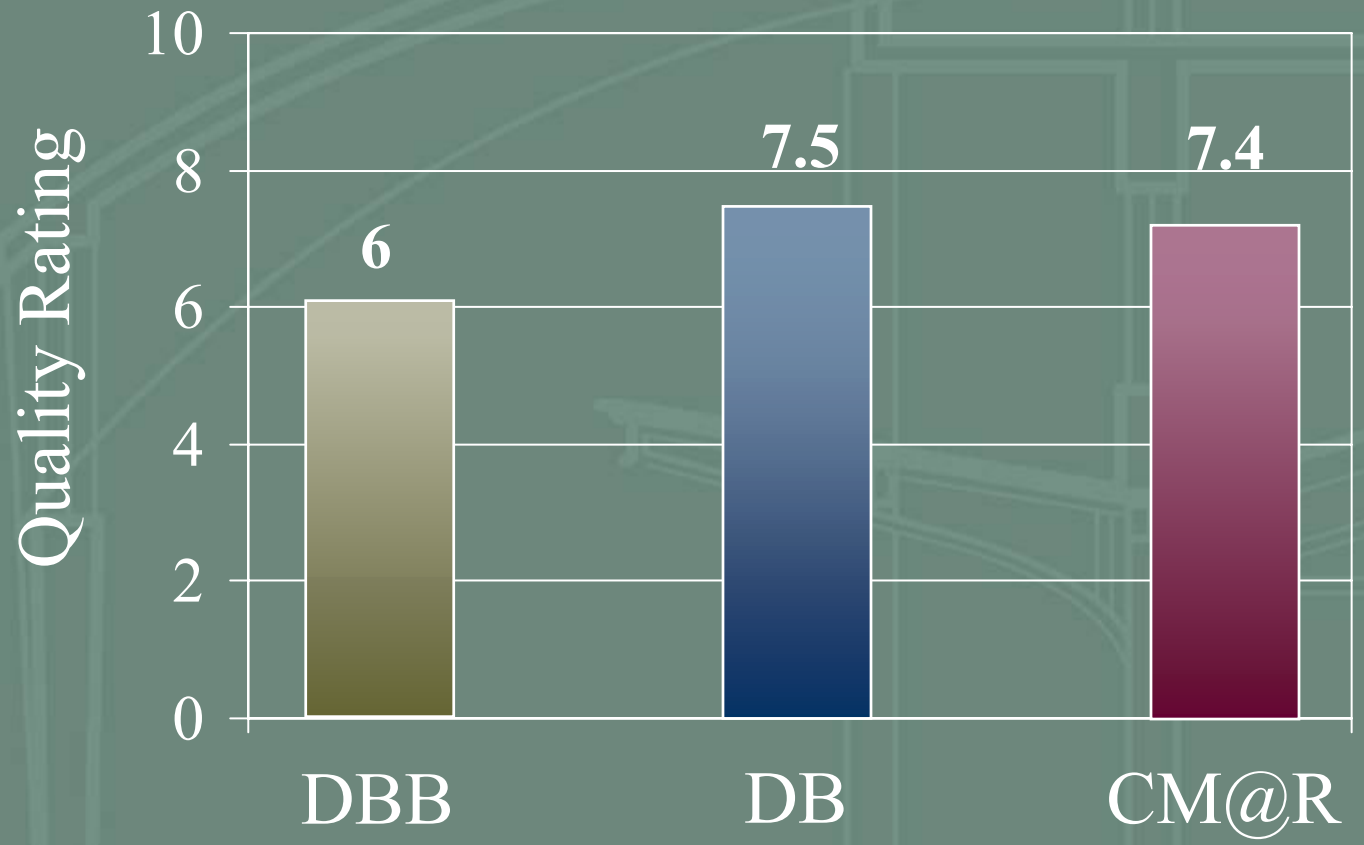
Design and Construction Speed



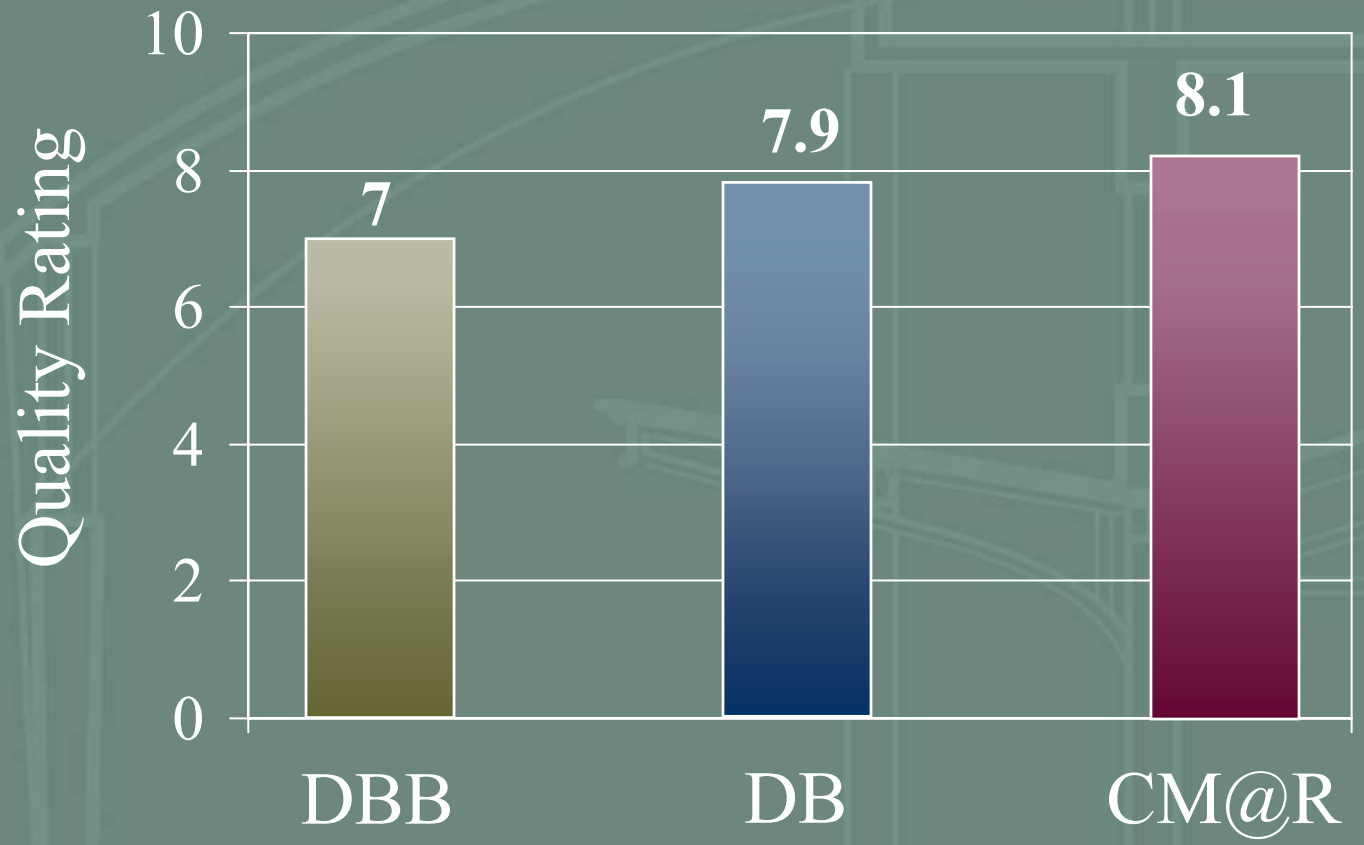
Design and Construction Speed



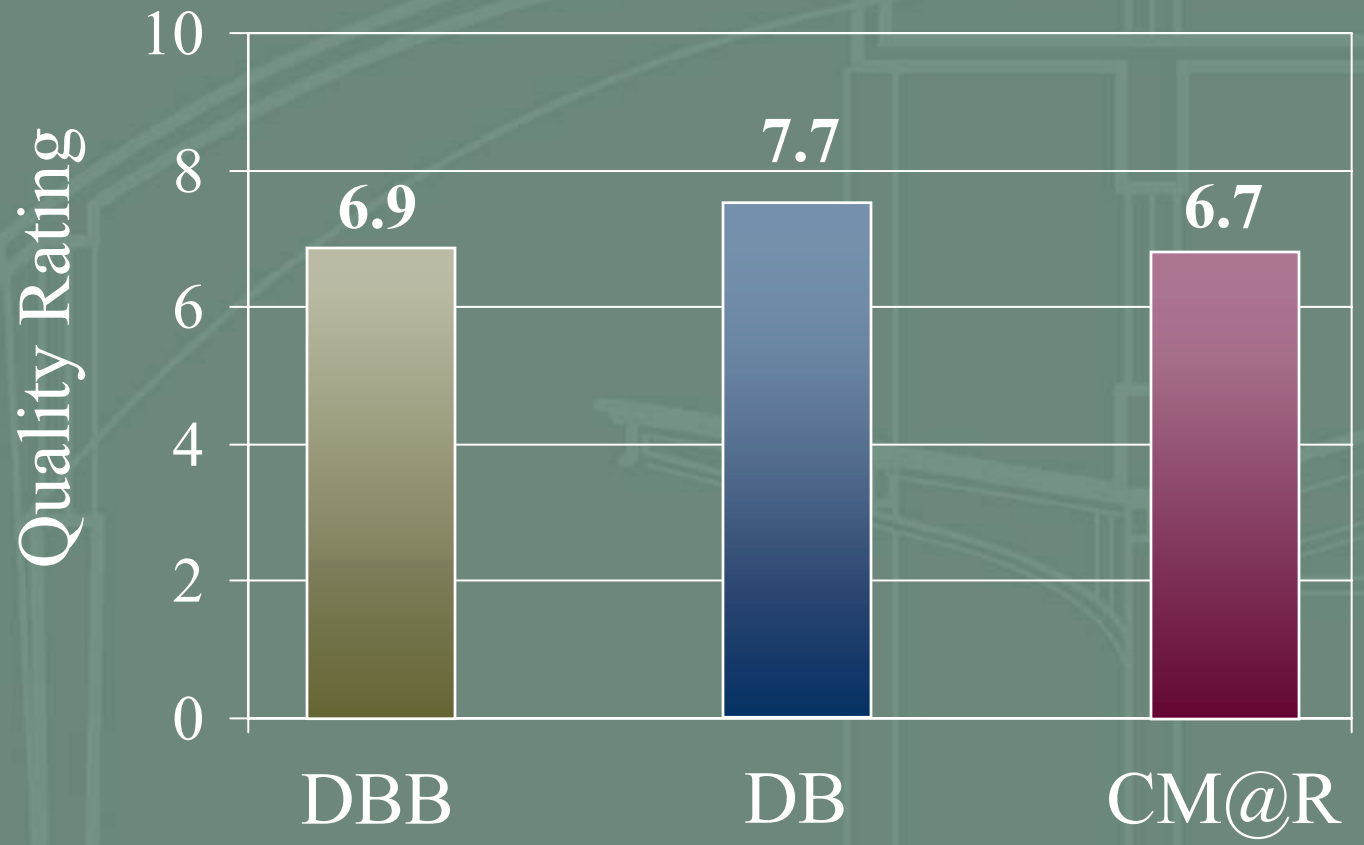
Lower Start-up Difficulty



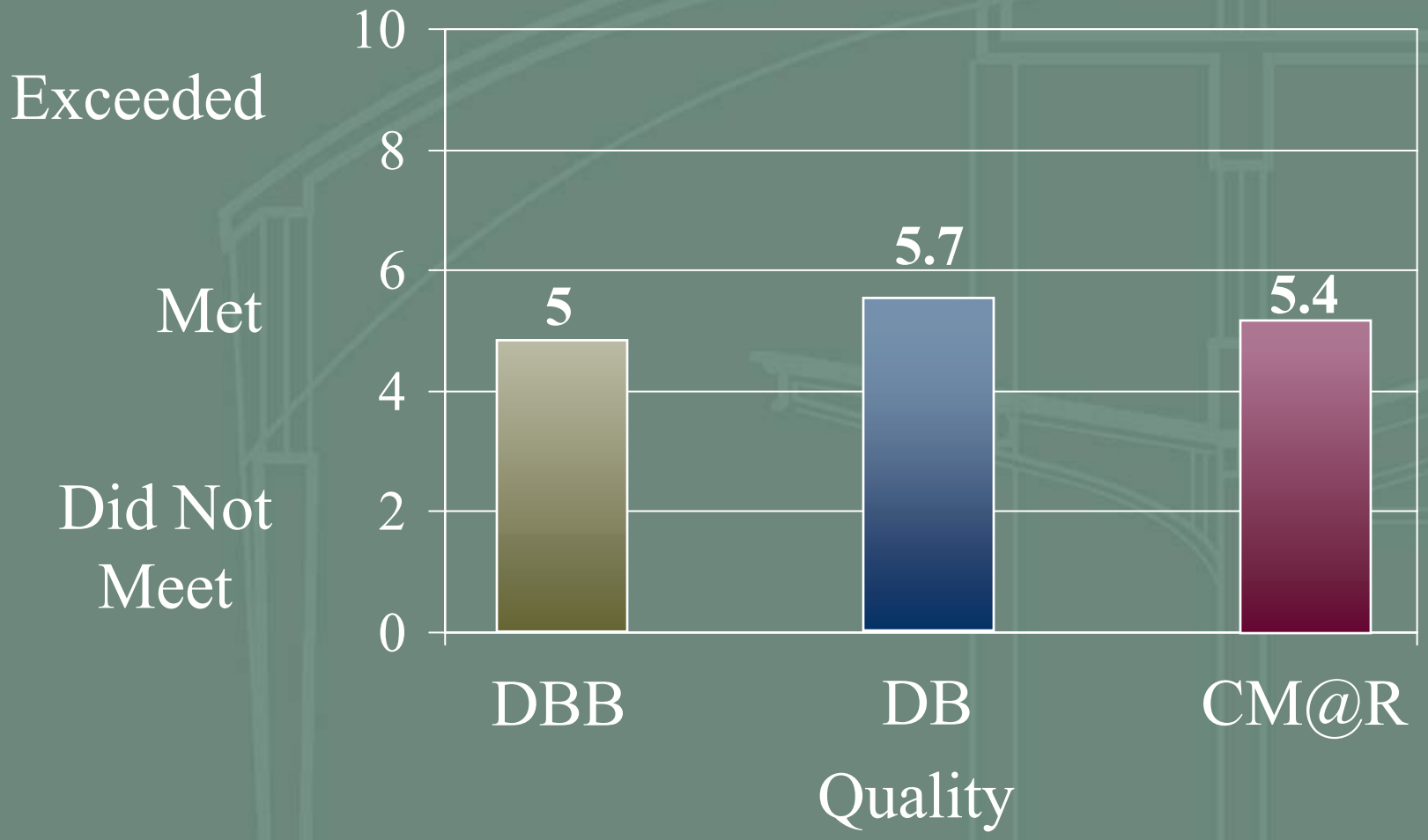
Lower Call Backs



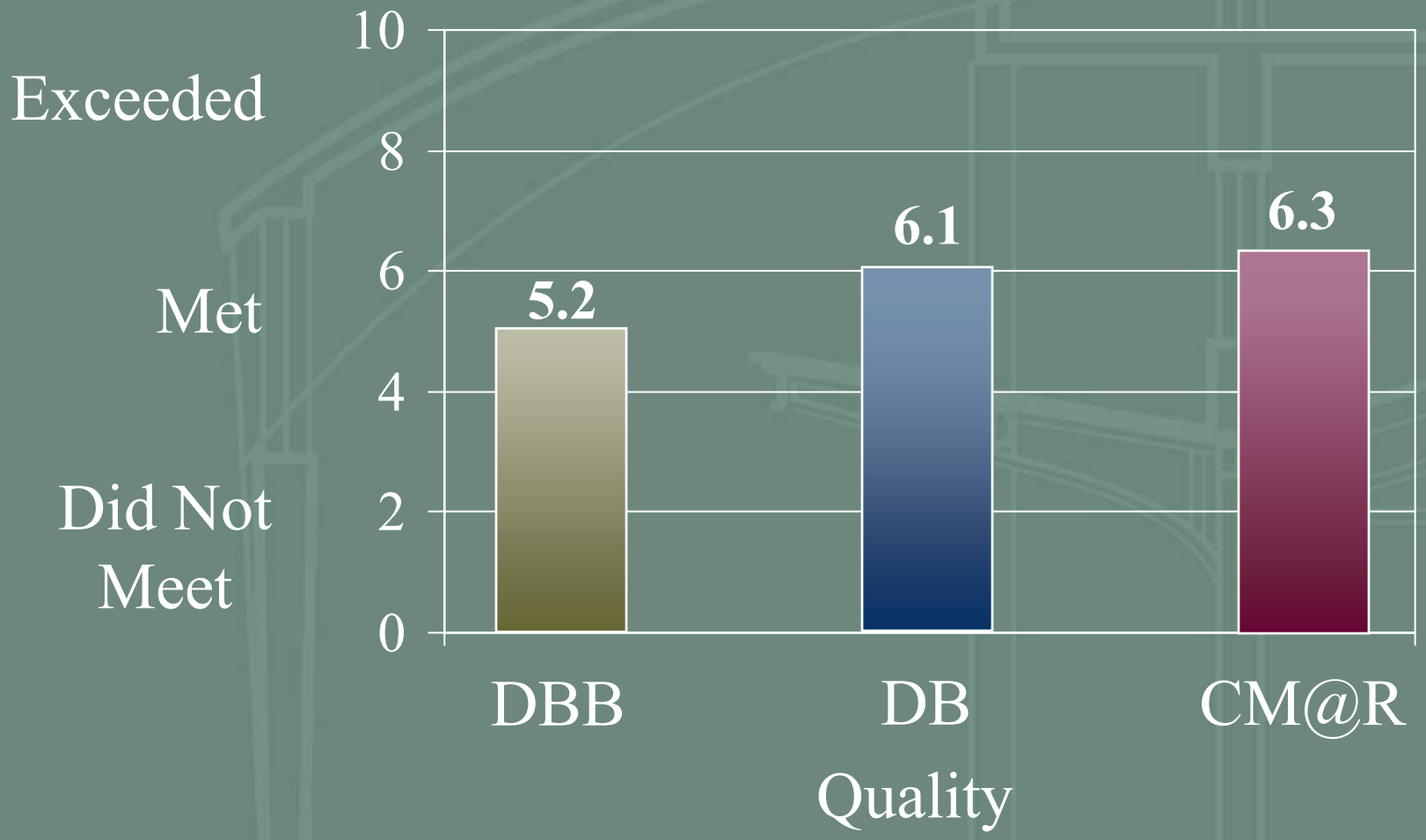
Lower Operations and Maintenance



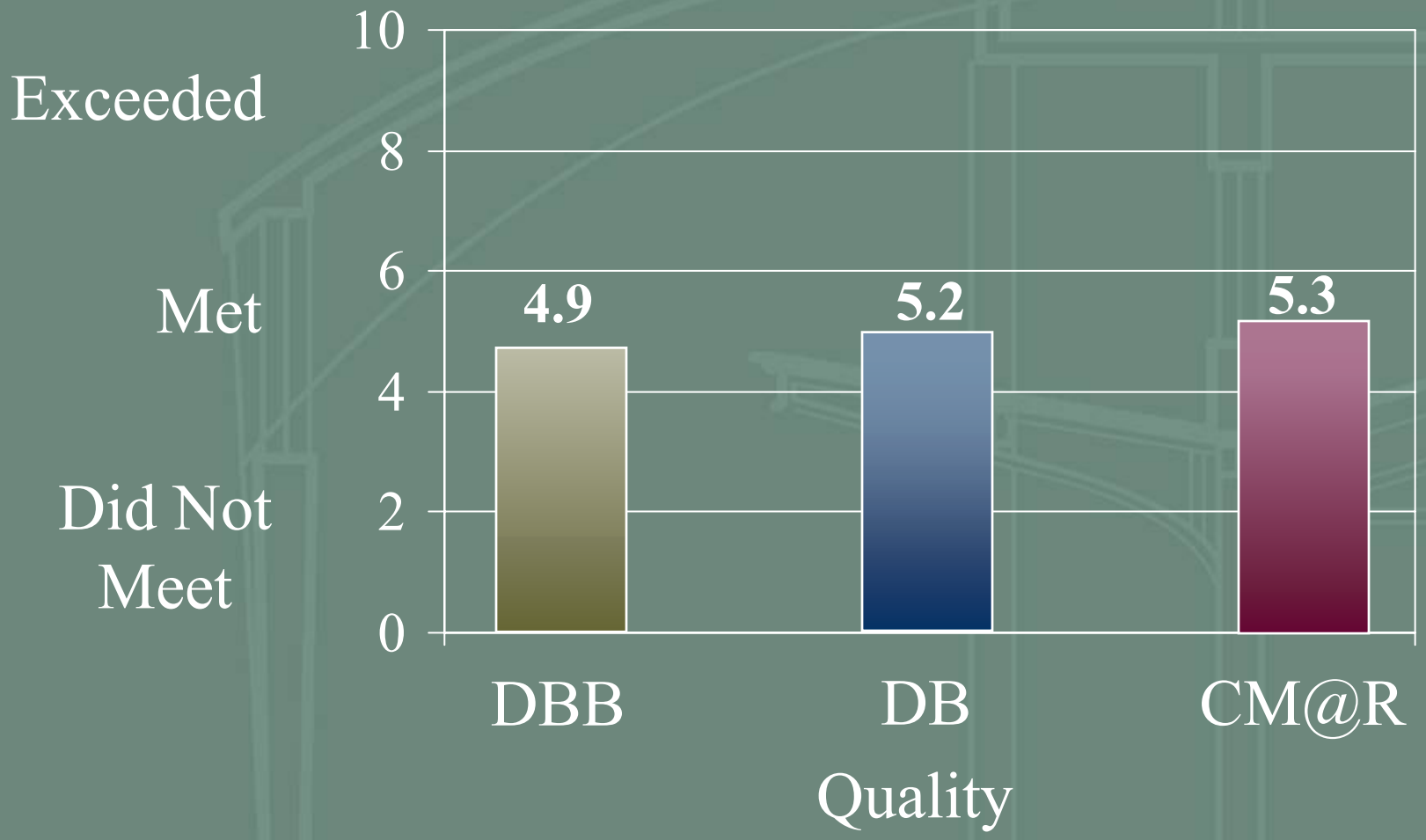
System Performance - Expectations of Envelope, Roof Structure, and Foundation



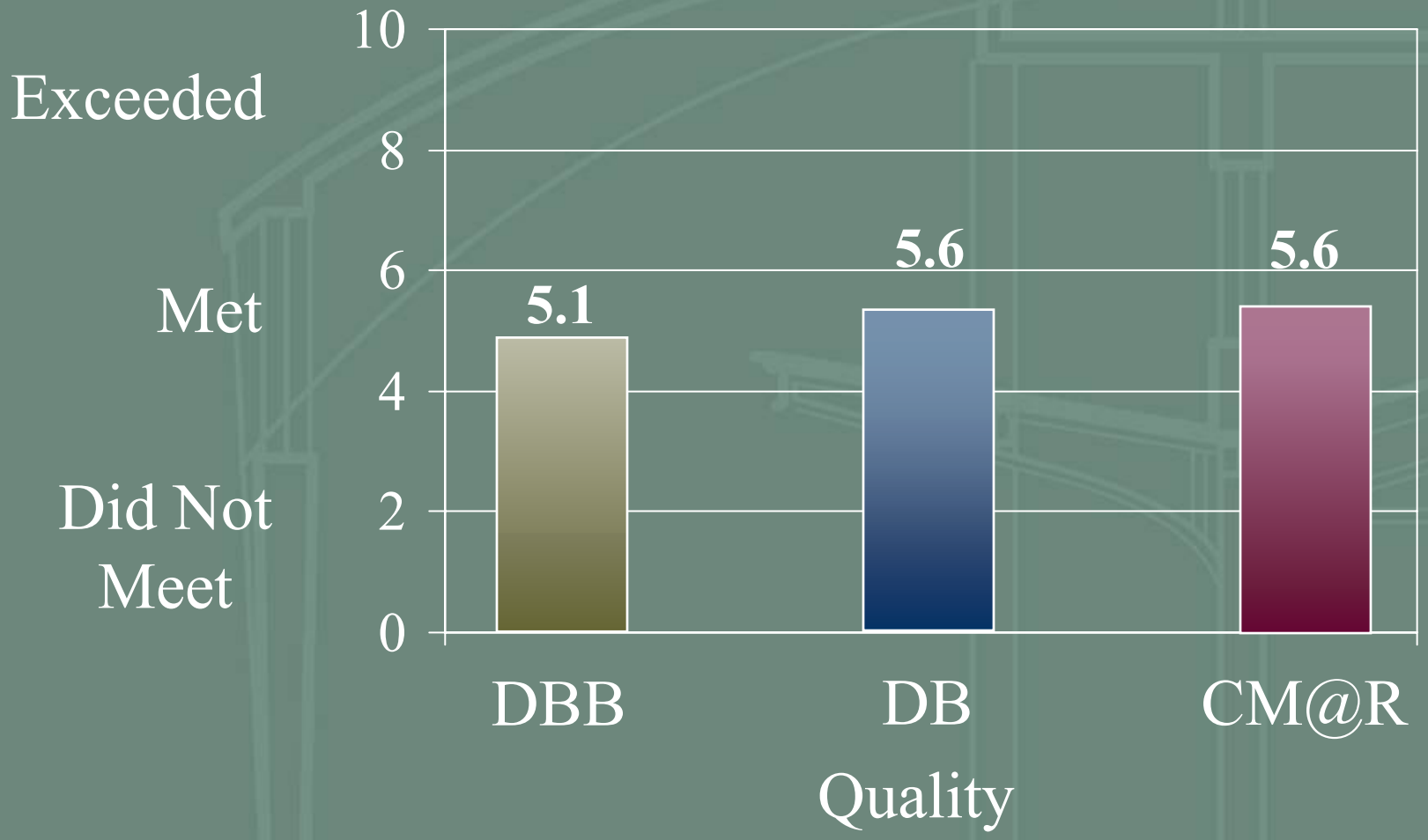
System Performance - Interior Space and Layout



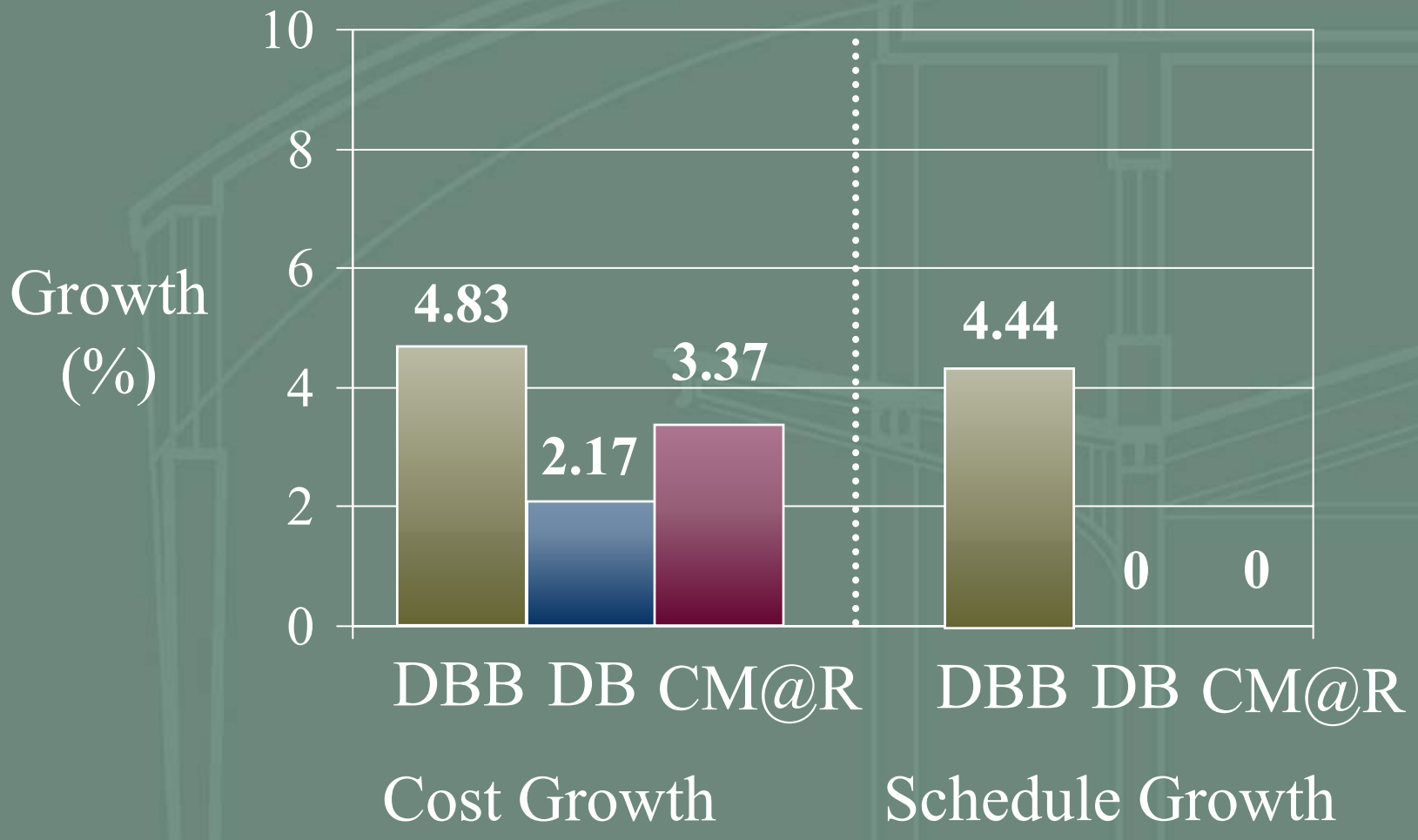
System Performance - Expectations of Environmental Systems



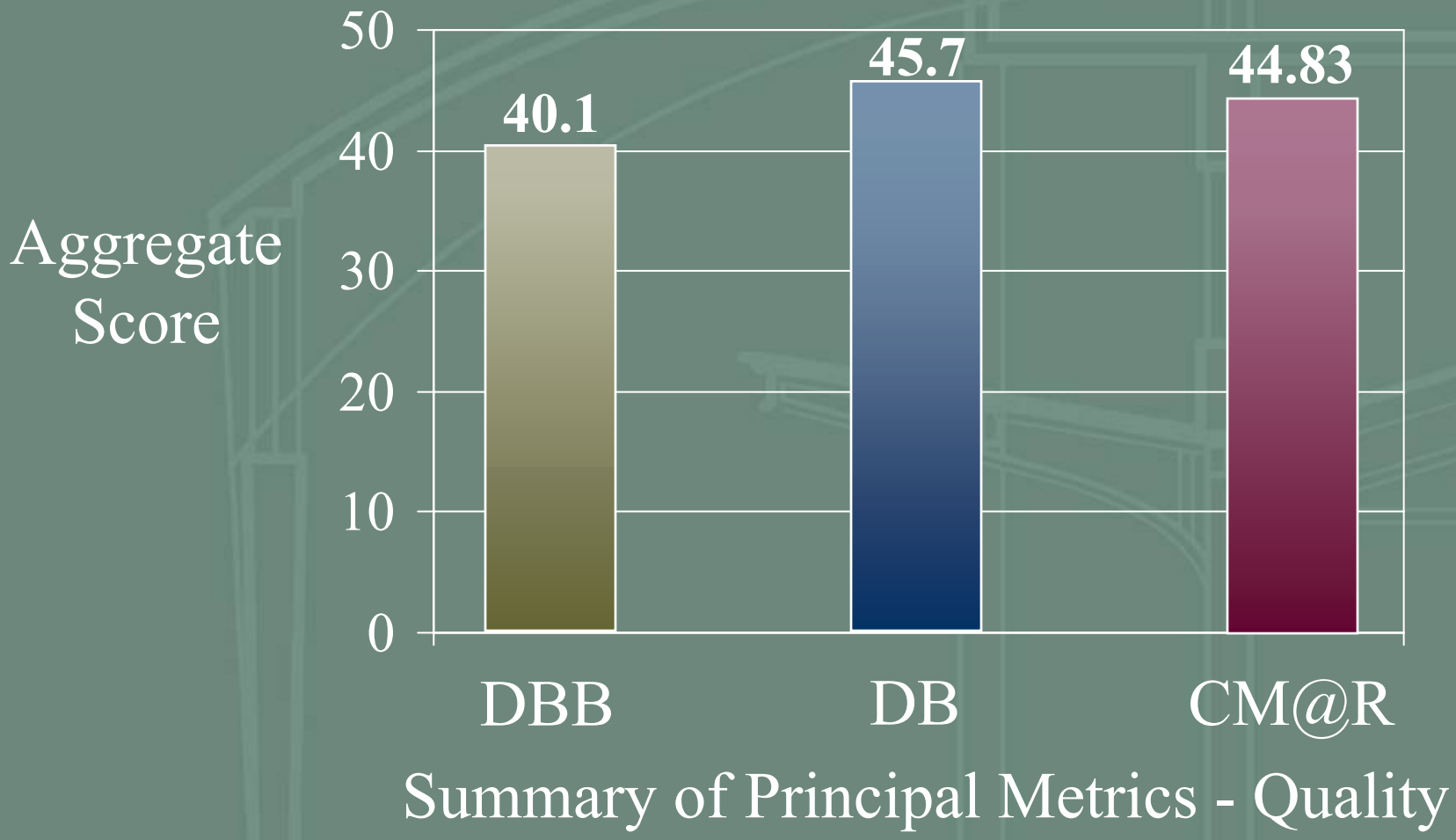
System Performance - Expectations of Process Equipment



Conclusion


Growth (%)
10
8
6
4
2
0
4.83
2.17
3.37
4.44
0
0
DBB
DB
CM@R
DBB
DB
CM@R
Cost Growth
Schedule Growth

Conclusion


Aggregate Score
50
40
30
20
10
0
40.1
45.7
44.83
DBB
DB
CM@R
Summary of Principal Metrics - Quality