

School of Engineering

Engineering Management – Motivation and Teams

Mark Sandford

Engineering Management

Motivation

- ❑ As engineers you prefer to do some things above other things
 - ❑ You should understand what motivates you
 - ❑ You should understand what motivates others
 - ❑ You can use this information to modify your behaviour
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- ❑ Therefore you need to understand how people are motivated and hence how to get the best from yourself and others.
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Motivation – 3 basic theories

- Maslow
 - The hierarchy of needs
 - Herzberg
 - The two factors
 - Expectation
 - Cue-action-payoff
 - Desire-action-satisfaction
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Motivation - Maslow

The hierarchy of needs

Self Actualisation

Self Esteem

Social / belonging

Safety / Security

Basic- Physiological / Physical

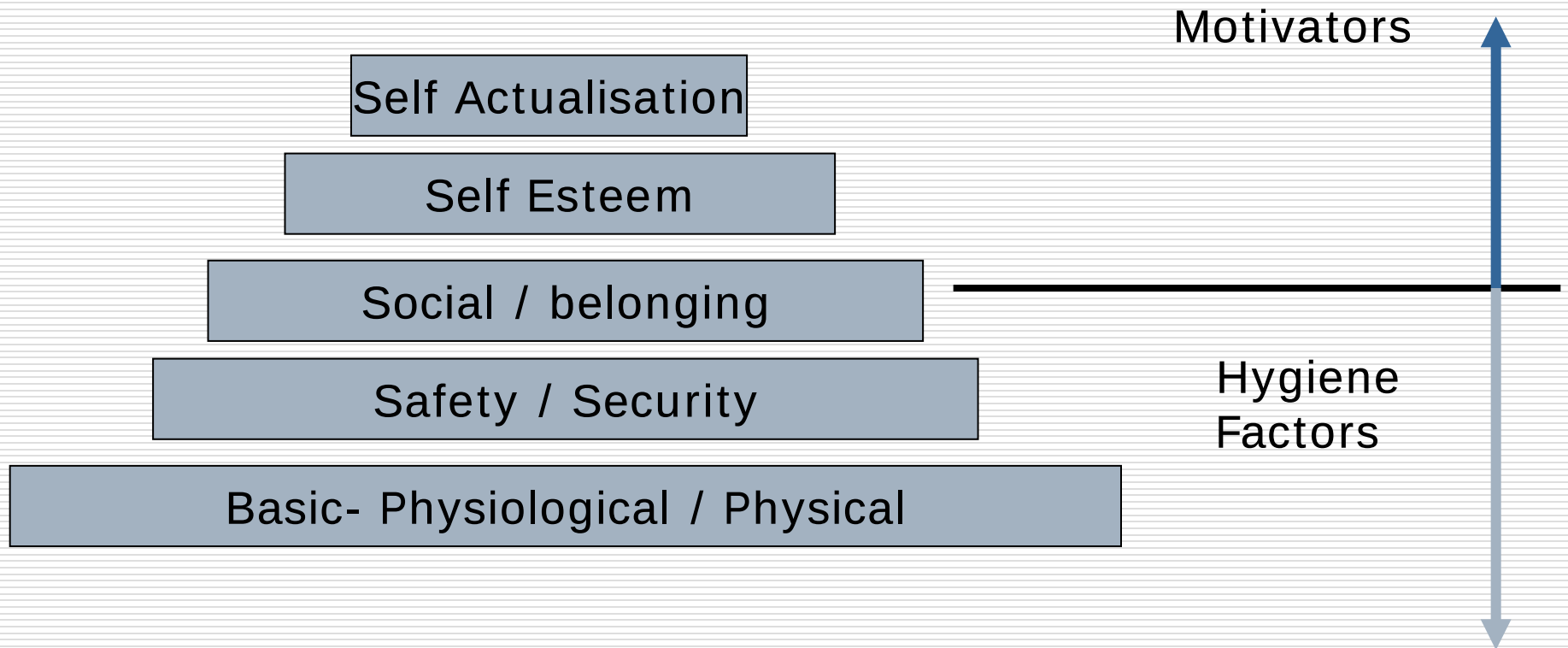
Motivation – Herzberg

- ❑ Herzberg's Two Factor Theory
 - ❑ Some factors in the workplace control **job satisfaction**
 - ❑ If these factors are not present there will be **no job satisfaction**
 - ❑ Other factors in the workplace control **job dissatisfaction**
 - ❑ If these factors are not correct there will be **job dissatisfaction**
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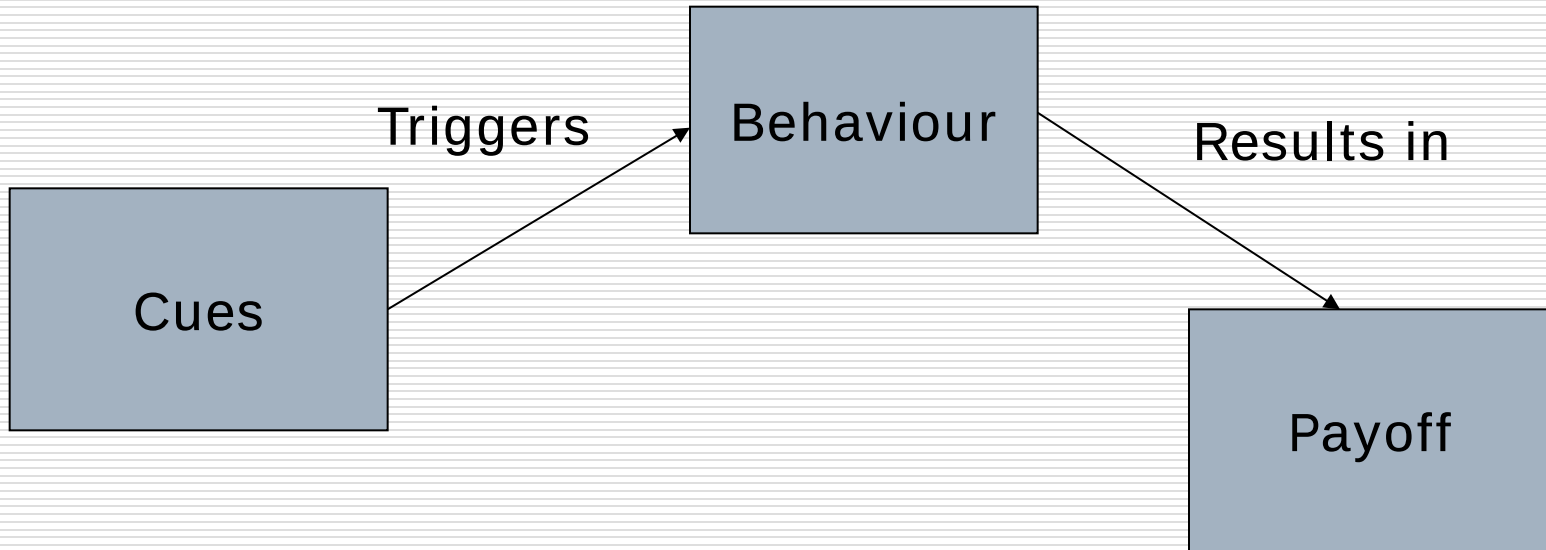
Motivation – Herzberg

- ❑ Herzberg's Two Factor Theory
 - ❑ **Motivators** control the level of **job satisfaction**
 - ❑ **Hygiene factors** control the level of **job dissatisfaction**
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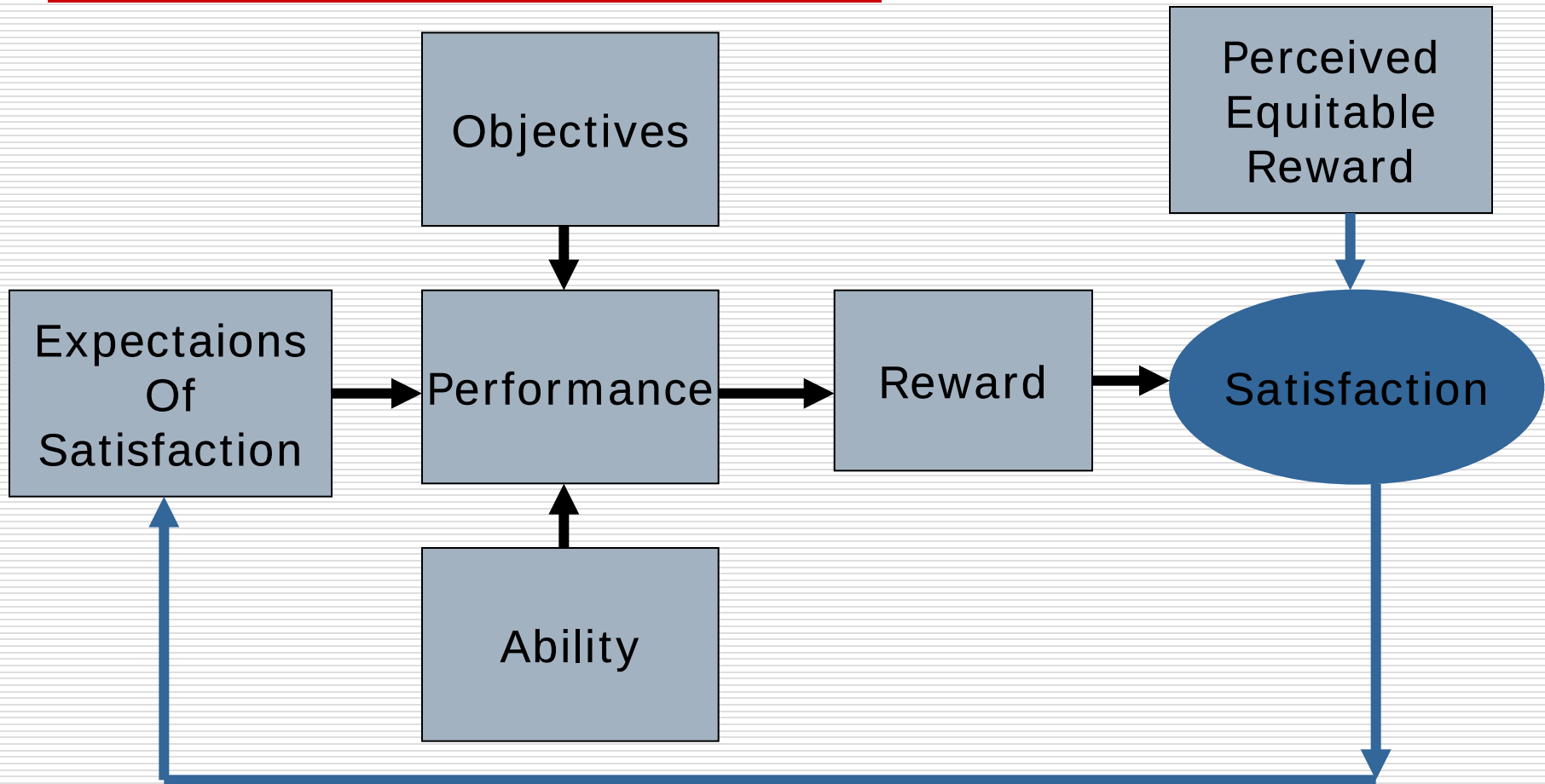
Motivation - Herzberg + Maslow

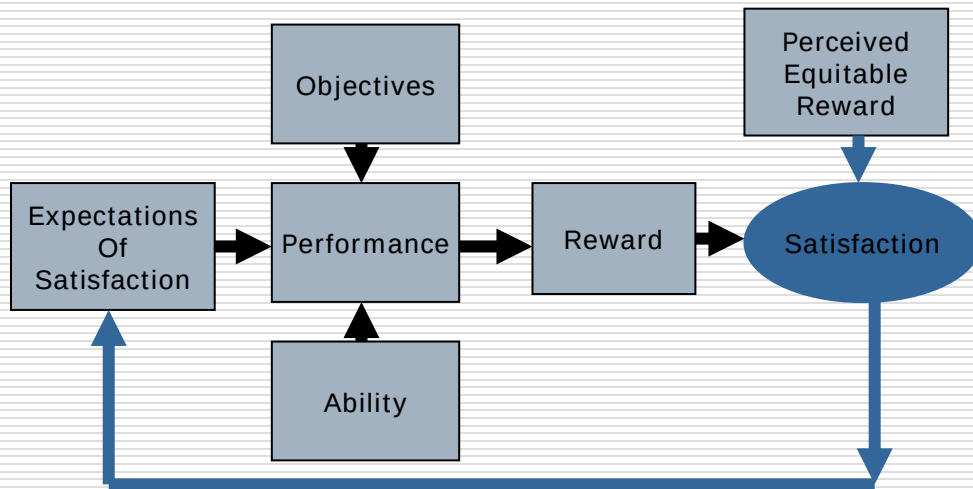


Motivation – Expectation



Motivation – Expectation







Motivation – Techniques

- ❑ Incentives
 - Money, benefits, bonuses, holiday
 - ❑ Enthuse
 - Encourage, praise, back patting
 - ❑ Progress
 - Demonstrate progress made to a goal
 - Or progress made away from nasty stuff
 - ❑ Big picture
 - Let them see the full picture and where they fit in
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Motivation – Techniques

- Personnel goals
 - Link tasks and training with the individuals goals
 - Ownership
 - Define responsibility, offer autonomy
 - Recognition
 - Allow people to obtain recognition for work
 - Play
 - Let people play together (and boss pays for it)
 - Importance
 - Explain the significance of the task
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Engineering Management Teams

- ☐ As engineers you will be part of a team
 - ☐ There will be non engineers in the team
 - ☐ There will be a variety of skills and experience
 - ☐ There will be different personalities
 - ☐ There will be different motivations
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- ☐ Therefore you need to understand how teams work and where/how you can/will fit in.
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What makes an effective Team ?

- ☐ Clear objectives and goals
 - ☐ Openness and Confrontation
 - ☐ Support and trust
 - ☐ Co-operation and conflict
 - ☐ Sound procedures and practices
 - ☐ Appropriate leadership
 - ☐ Regular review
 - ☐ Individual development
 - ☐ Sound relationships with other teams
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Belbin's Teams – Doing acting

☐ Implementer

- Well organised and predictable. Takes basic ideas and makes them work in practice. Can be slow

☐ Shaper

- Lots of energy and action, challenging others to move forwards. Can be insensitive.

☐ Completer/Finisher

- Reliably sees things through to the end, ironing out the wrinkles and ensuring everything works well. Can worry too much and not trust others.
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Belbin's Teams – Thinking/problem solving

☐ Plant

- Solves difficult problems with original and creative ideas. Can be poor communicator and may ignore the details.

☐ Monitor/Evaluator

- Sees the big picture. Thinks carefully and accurately about things. May lack energy or ability to inspire others.

☐ Specialist

- Has expert knowledge/skills in key areas and will solve many problems here. Can be disinterested in all other areas.
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Belbin's Teams – People / feelings

☐ Coordinator

- Respected leader who helps everyone focus on their task. Can be seen as excessively controlling.

☐ Team worker

- Cares for individuals and the team. Good listener and works to resolve social problems. Can have problems making difficult decisions.

☐ Resource/investigator

- Explores new ideas and possibilities with energy and with others. Good networker. Can be too optimistic and lose energy after the initial flush.
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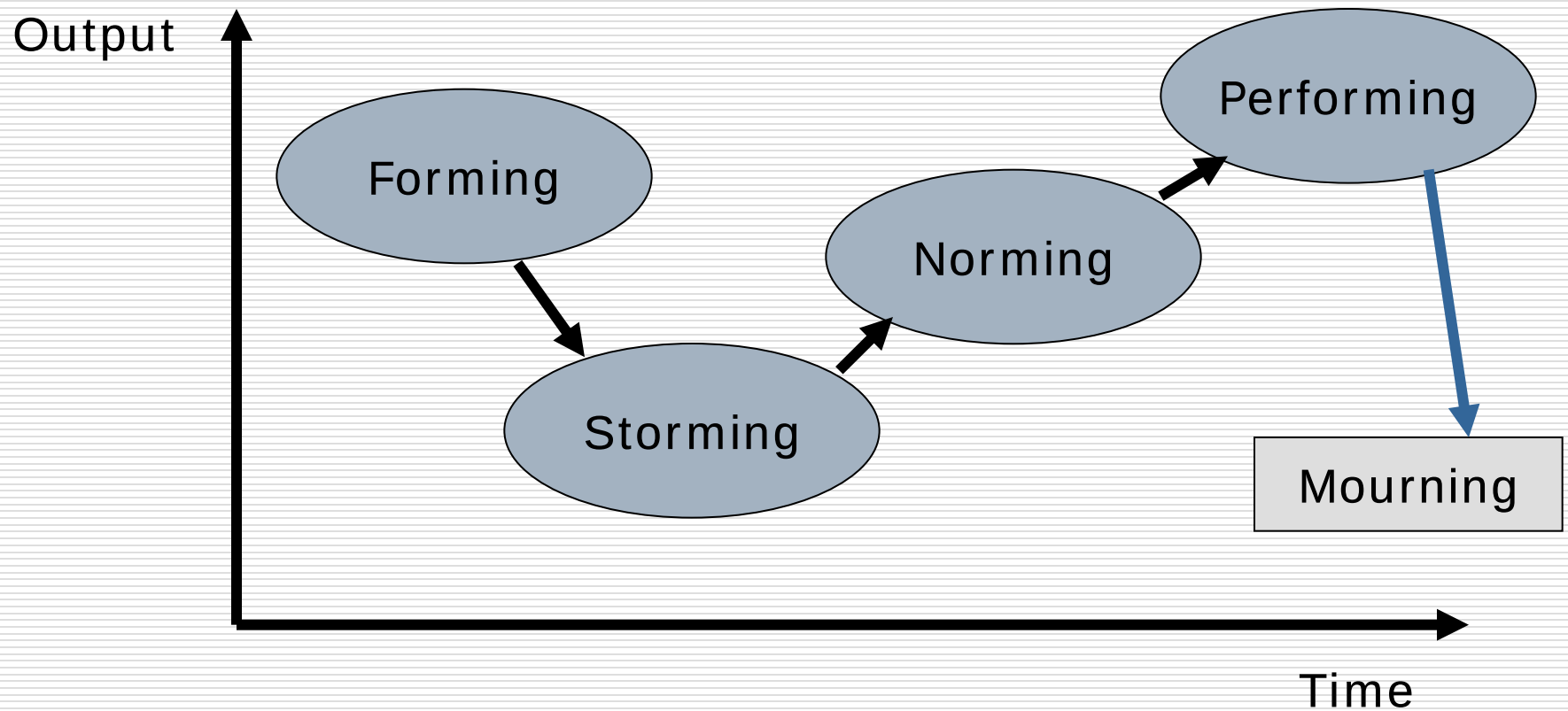
Belbin's Teams – and you

- ☐ Your skills
 - What specialist skills can you bring to the team?
- ☐ Your approach
 - What approach, attitude have you ?
- ☐ Your contribution
 - What can you do for the team ?

Where do you 'fit in' ?

Self assessment

Team development B Tuckman



Stages of team development

- ❑ Forming
 - High energy, enthusiasm, polite, ritual sniffing
 - ❑ Storming
 - Uncomfortable, conflict, split to factions
 - ❑ Norming
 - Structure, vision, direction
 - ❑ Performing
 - Results / completion, objectives, can dull/refresh
 - ❑ Mourning
 - Reflection, celebration, recognition
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