Lecture 9: Organisations

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This lecture

- What is an organization?

- Organisational models

- Managers and leaders

What is an organisation?

Reflection (1)

Becoming a legal entity

- Types of organisation: **commercial**, non-commercial (not-for-profit).
- Different kinds of commercial organisations:
    - **Sole trader** – individual, no legal formalities, the legal entity is the individual.
        - If turnover is big enough, will need to register for VAT.
        - The individual is liable for company debts– assets like home, savings at risk

    - **Partnership** – the form a group must trade under unless it is a limited company
        - Often the required form of organisation for professionals, e.g. law, medical, hedge fund, etc. because the liability issues control excesses
        - Liability is joint and all are fully liable for the debt of the partnership
    - **Limited company** – preferred form of legal entity for commercial firms

Limited companies

Three principles:

- The company is a legal person separate from the people who own or work in the company.
- Ownership is divided into shares that can be bought and sold by shareholders.
- Owners of the company have no obligation to pay debts incurred by the company – the owners' risk is limited to the value of their shares.

- In the UK:
  - **Public limited company (plc)**: public can hold shares that may or may not be listed on the stock exchange; e.g. NCC Group plc
  - **Private limited company (Ltd)**: shares cannot be held by the public; e.g. Bell Microsystems Ltd

Setting up a limited company

- Not necessary to employ a lawyer or accountant

- Easiest way is to buy an "off-the-shelf" company and tailor it to your needs (change the name, objectives, constitution, ...)

- Registering a company yourself costs less than £100 (same-day service at the Register of Companies) – this is slower because you need to fill in forms etc.

- UK and US have similar, easy, ways to set up companies. In other countries it can take longer and cost much more.

Constitution of a limited company

- Two documents necessary:
  - Memorandum of Association:
    - Short and simple, stating that shareholders want to form a company
    - Includes name, location of the registered office, objects of the company, liability clause (saying the limits to liability of the owners), share capital (e.g. 100 shares, value £1 – to be a plc must have capital over £50K). Concludes with declaration of association that list the people setting up the company.
  - Articles of Association:
    - Complex and technical (see for example: https://www.gov.uk/government/publications/model-articles-for-private-companies-limited-by-shares/model-articles-for-private-companies-limited-by-shares).
    - Covers how the company will run, roles of directors, ...

Once a company is registered then the memo of association and articles of association are on public deposit at Companies House.

Exercise

Directors

- **Directors** run companies; can be shareholders or hired by them
- Directors have:
    - domestic obligations –owed to the company:
        - Have regard to the owners and employees' interests
        - Act in good faith and for the benefit of the company
        - Exercise skill and care (be "professional")
        - Declare conflicts of interest
    - legal/external obligations:
        - Be aware of company's financial position; May become personally liable!
        - Draw up annual reports/ accounts and file them at Companies House
        - Comply with relevant law; May become personally responsible!
- Companies have executive (**board of directors**) and non-executive (**members of the board**) directors
- **Company secretary** (often also a director) responsible for required communications

Non-commercial bodies

- **Public**: many are **statutory bodies** – set up by act of Parliament
- Others (often established as companies limited by guarantee):
    - **Charities**
    - **Professional organisations**: e.g. BCS, Institute of Physics
    - **Political parties**
    - can apply for Royal Charter: sets up free-standing bodies that are independent of the state, e.g. universities

Organisational models

Organisational models

- Outline the way the work is organized inside a company (organization of people).

Organisational models

- **Bureaucratic model**:
    - Specialist roles, in which employees become expert; held responsible
    - Performance of tasks governed by precise rules
    - Each individual accountable to one manager
    - Formal and impersonal style of communication, mostly vertical
    - Recruitment based on qualification
    - Protection from arbitrary firing
    - Promotion based on seniority/achievement
    - Focus: control, efficiency

- **Organic (participative) model (e.g. Valve Cooperation)**:
    - Everyone contributes equally
    - Flat hierarchy
    - Open communication
    - Everyone actively involved in company-wide decisions
    - Everyone responsible for all products
    - No clear-cut promotion criteria; growing horizontally
    - Focus: innovation, adaptability

Organisational models

- **Matrix model:**
  - Accepts that bureaucratic model is too restrictive; work may be project based.
  - Functional specialisation on one axis (like in bureaucratic) and project-based flexibility on the other (like in organic)
  - Employees may be working on multiple projects/products at once
  - Employees answer to several managers at once (functional manager and project/product manager(s))

- Many large IT corporations a mix:
  - Google: matrix with organic culture and increasing bureaucracy
  - Spotify: matrix that uses organic principles
  - Oracle: bureaucratic culture, but matrix to handle scale
  - IBM: matrix to coordinate across borders and products, bureaucracy to ensure stability and control
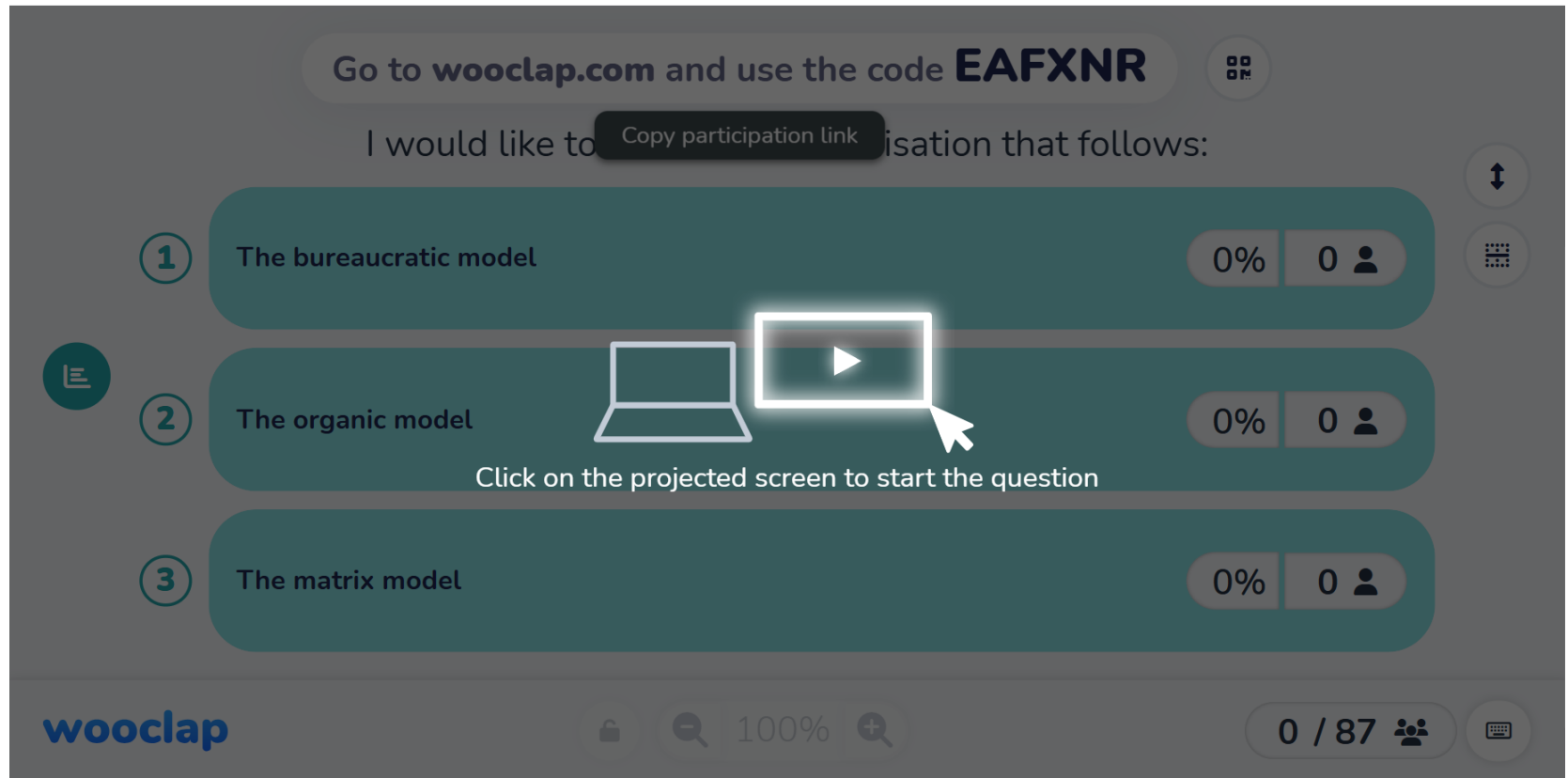
Reflection (2)

Structuring principles

- Tasks and activities grouped together into components

- Outline how the components of organisations are decided and how they are related (structure of the components of the organization).

- Organisational structure is usually captured in an **organogram**.

Structuring principles

- Organisational components can be decided based on, e.g.:
  - **Function**, e.g.: Operations, Administration, Sales and Marketing, R&D
  - **Geography**: suitable for multinational companies with subsidiaries
  - **Ownership:** parent company owning other companies
  - **Product line**: based on type of product or service provided
  - **Market sector**: based on market sector that (prospective) customers belong to
  - **Technology**: e.g. AI, Web-based systems, Databases, etc
  - **Operational structure**: project-basis (longer, then team dissolves) or production basis (shorter, team kept indefinitely, e.g. central data processing, payroll, etc)

- The above are not mutually exclusive: several can be used for different parts of the organisation, or be combined

Example organograms

World Health Organization Headquarters*
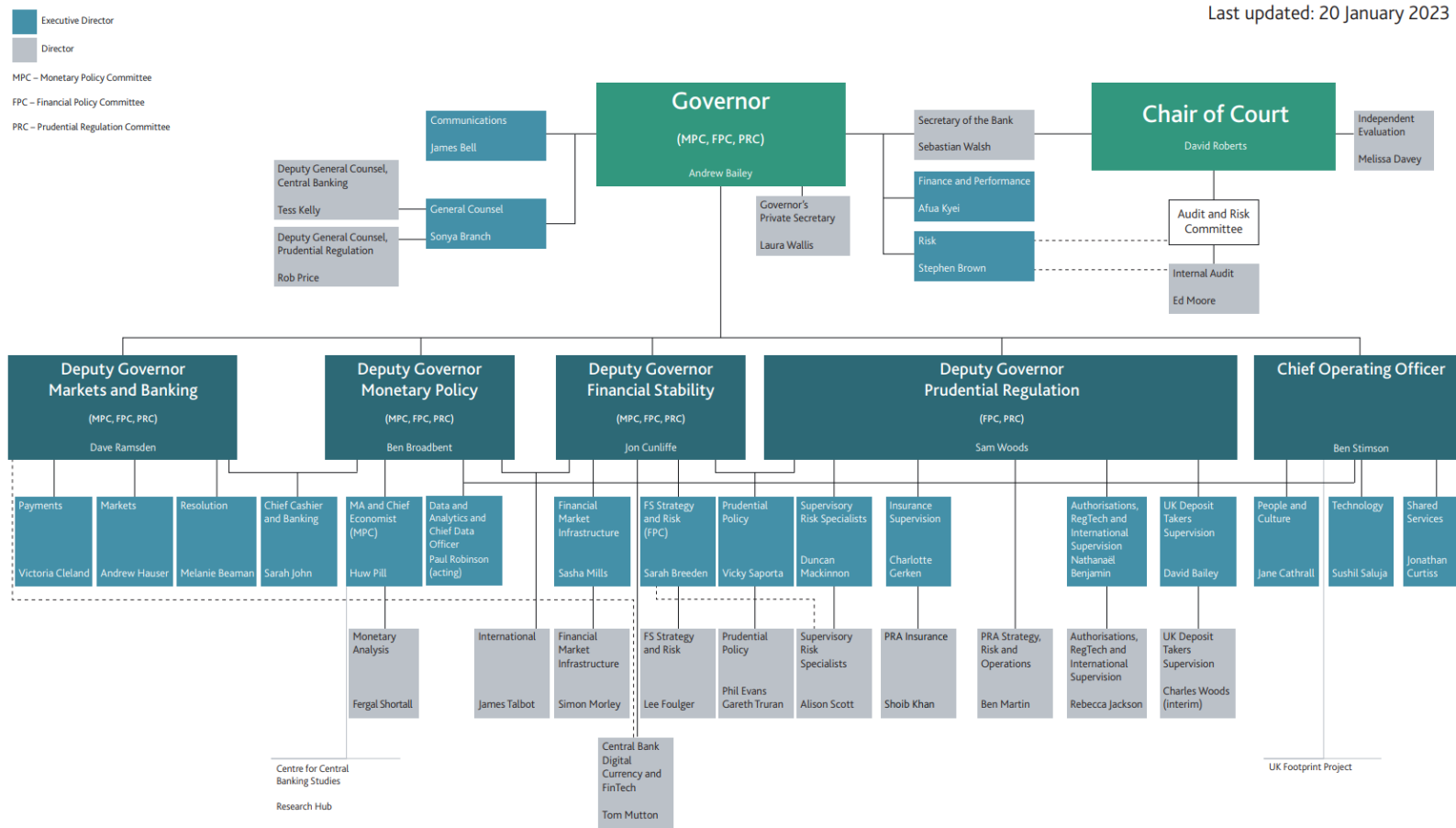(as of 1 January 2023)

*Click on the Division for further details

https://cdn.who.int/media/docs/default-source/documents/about-us/who-hq-organigram.pdf
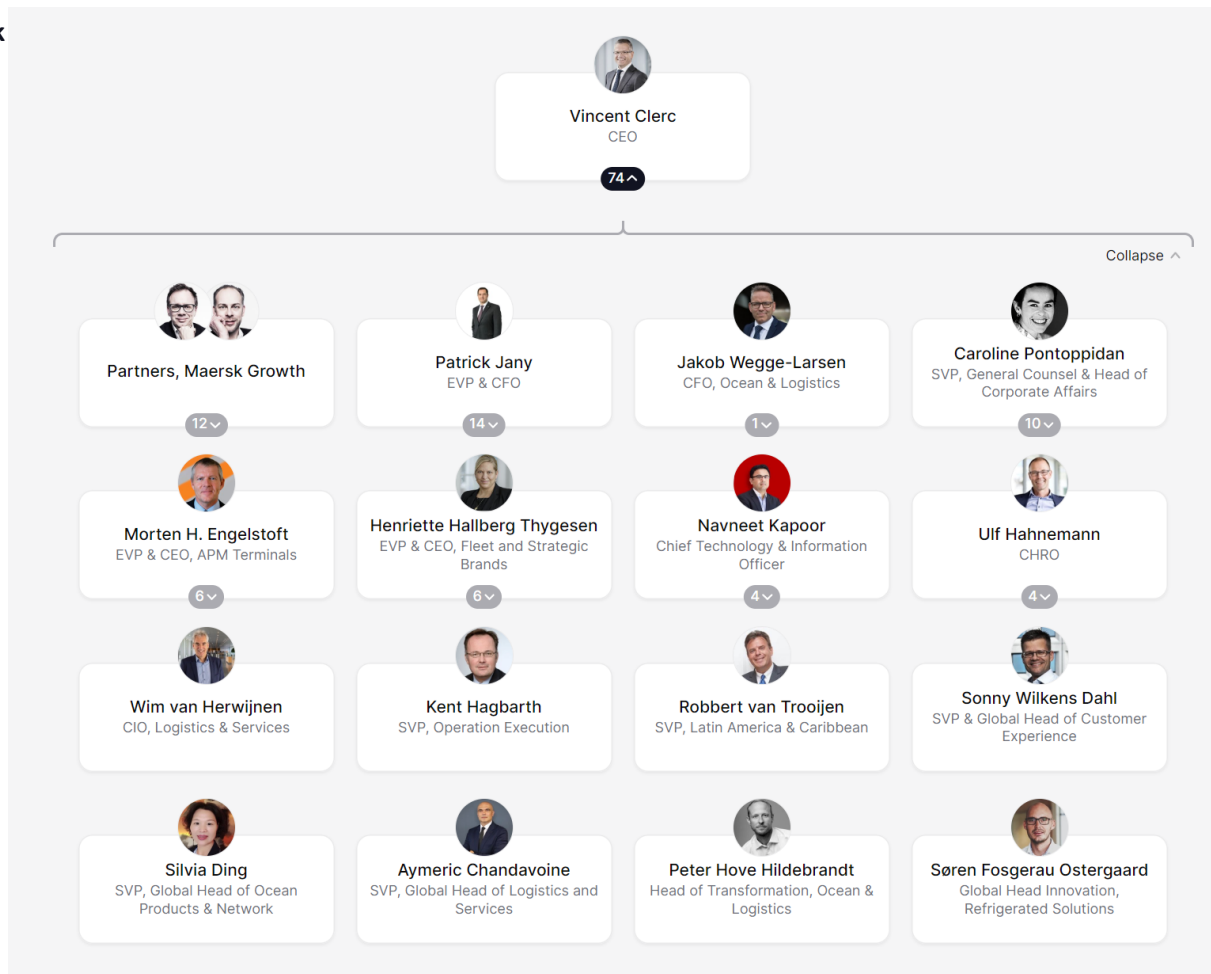
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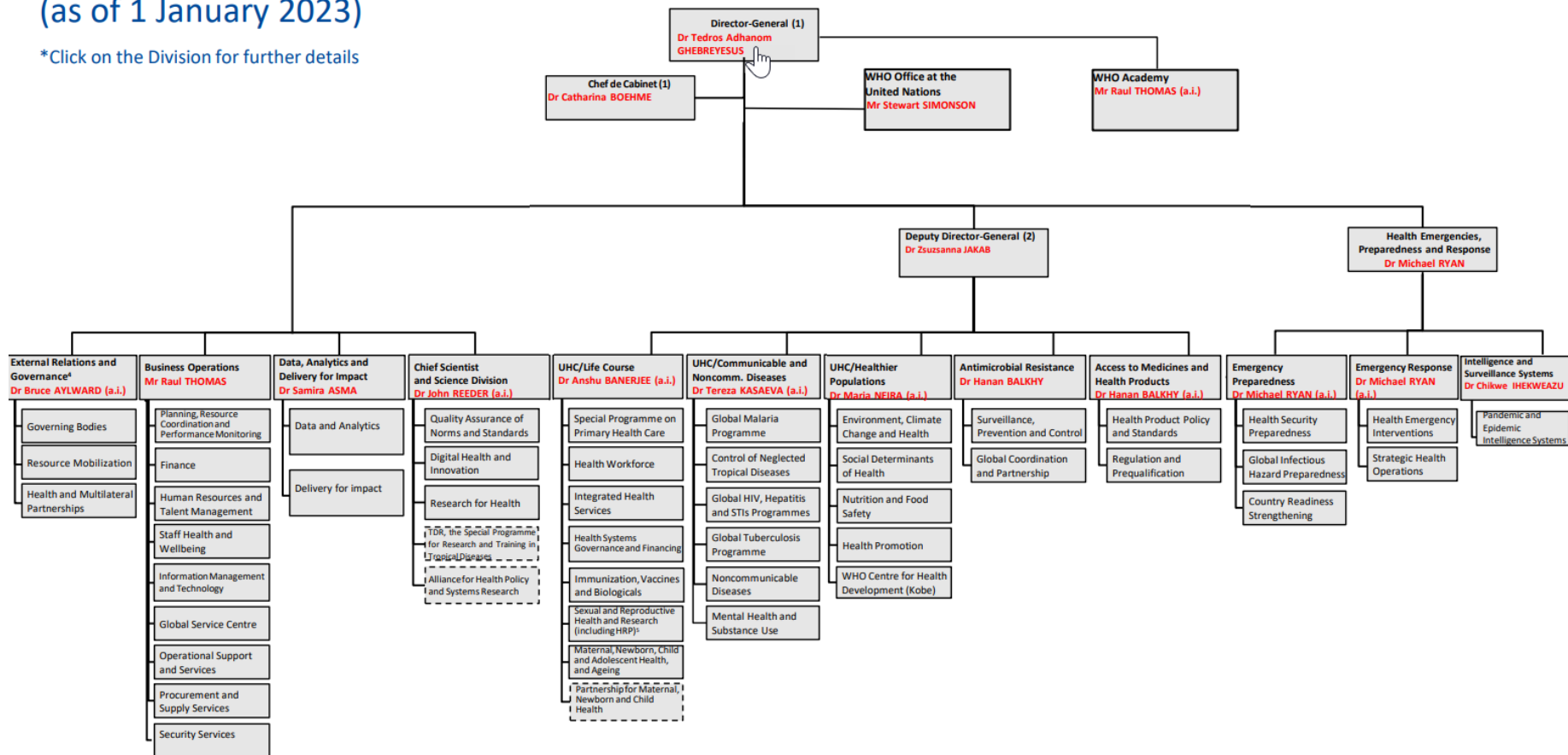
Example organograms

Bank of England

Example organograms

A.P. Moller - Maersk

Example organograms

https://www.ed.ac.uk/sites/default/files/atoms/files/orgstruct_0.pdf

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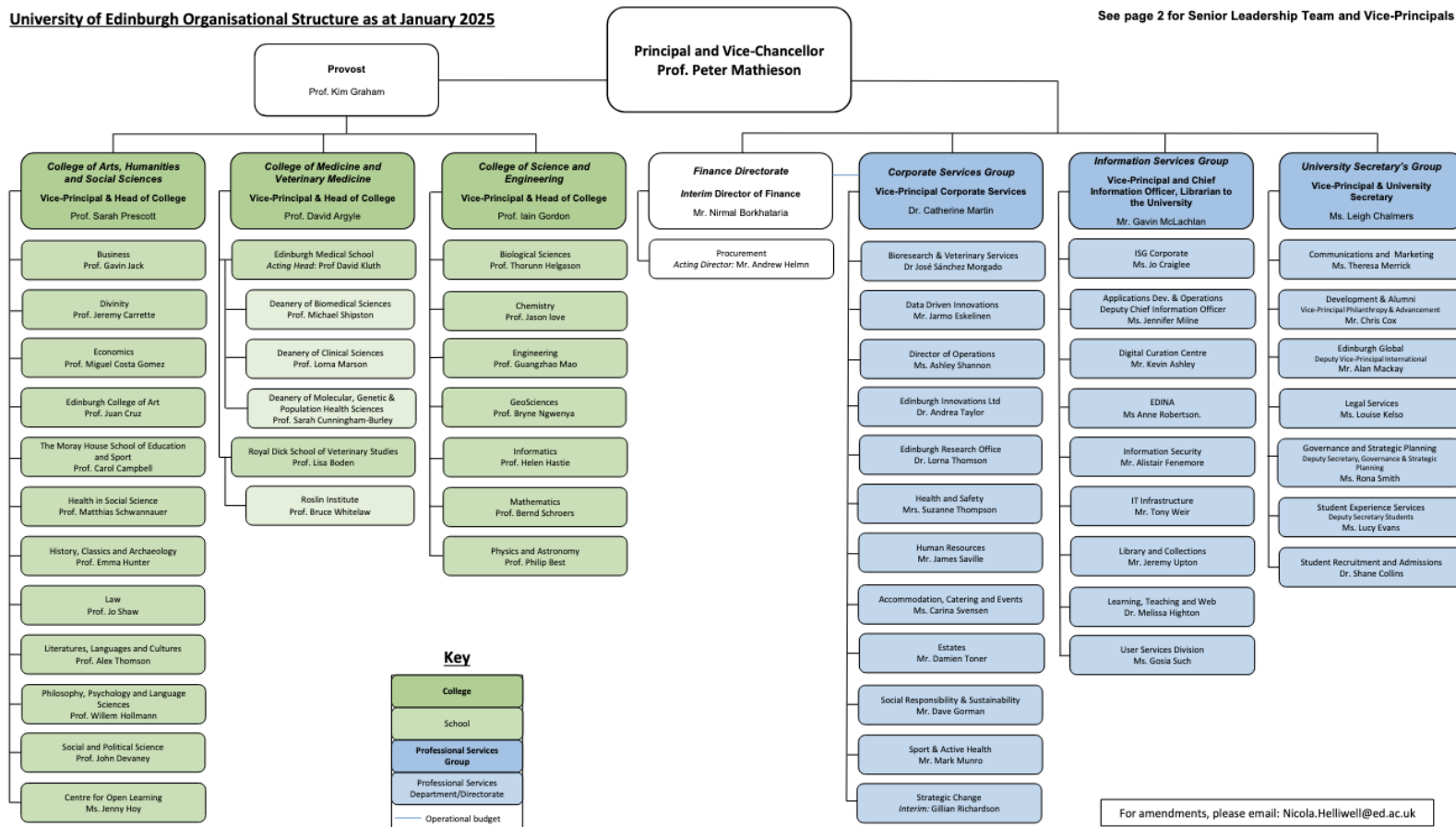
Activity

- Have a look at "the org" website, for example the org chart (organogram) for the company Diageo is here: https://theorg.com/org/diageo

- Choose a company and look at its organisation.

- Think of what structuring principle(s) the company has and why you think it has this structure.

Depth of structure

- The maximum number of layers in the structure

- Organisational structures are often described as flat or, in contrast, deep or tall, according to whether the depth is small or large

- **Span of control**: number of people reporting directly to a manager
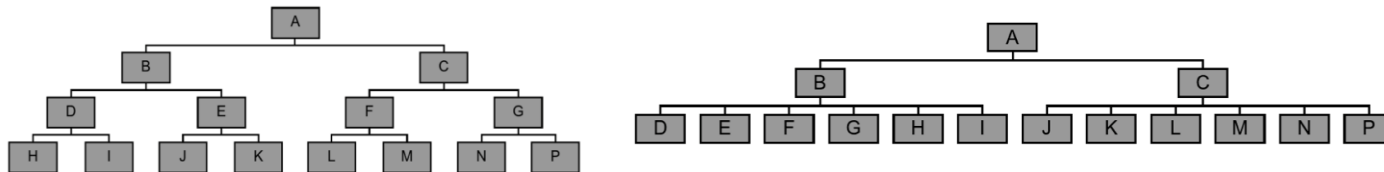
From: Bott "Professional Issues in Information Technology" Chapter 4

Centralisation

- **Centralised company**
    - as much power and control as possible is kept at the top of the company, with delegation only when essential
    - More frequent in larger manufacturing companies and other long-established organisations

- **Decentralised company**
    - as much power and control as possible is delegated to the lowest level

- Flexible centralisation (central rules and practices can be modified when justified) the ideal, but difficult to apply

Relation size of company-appropriate structure

- **Small company** – service functions

- **Large company** -- more oriented towards the market

Case study: VolksWagen's "Dieselgate"- The problem

- 2015: VW aiming to introduce 'clean diesel' to US market

- The U.S. Environmental Protection Agency (EPA) issued a notice of violation to Volkswagen after discovering software ("defeat device") in their diesel vehicles that detected when the car was being tested.

- The "defeat device" allowed vehicles to pass lab tests but emit significantly higher levels of pollutants, like NOx, during normal driving.

- VW admitted about 11 million cars worldwide, including Audi, VW, and Porsche models, were fitted with this device

Case study: VolksWagen's "Dieselgate"- The causes

- VW had a notoriously unwieldy structure
  - Responsibility for the development of drives and official approvals handled by the same Development department

- High-pressure, "unyielding" corporate culture

- Errors and corporate mindset that tolerated rule-breaking

Case study: VolksWagen's "Dieselgate"- The solution

- Almost halved number of senior managers, hired some new ones

- Reorganization within Development: separating responsibility

- Formation of new bodies for cross-brand management and clarification of compliance issues

- Early alignment of the product portfolio with legal requirements

- Guidelines for the development of software respecting legal requirements

- Uniform process standards and work instructions that give those involved legal certainty in the work process

- Training programs

- Regular reporting for more transparency

- Multiple controls for approvals in the product development process

Conclusion

- Organisational structure is essential for larger organisations

- Structure according to business priorities

- All business structures make it difficult for the organisation to respond to some risks

- Structure to facilitate business and make it easy to respond to the most likely serious risk

Managers and leaders

Managers and leaders

- One day you might become a manager or a director or a leader
    - What does that mean exactly?
    - What issues should you be sensitive to?
        - Seniority is important in determining this.
        - Managers will often be involved in operational matters.
        - Directors and leaders can be more strategic and policy-oriented

The manager

- Develops plans and timetables
- Organises
- Delegates and monitors
- Exercises control, applies corrective action
- Communicates
- Motivates
- Delivers (predictable)
- Looks inwards

Leaders can emerge

- Perceived by group as most competent in leadership functions:
    - Task-orientated: coordinating, initiating contributions, evaluating, information seeking and giving, opinion seeking and giving, motivating
    - Socio-emotional: reconciling differences, arbitrating, encouraging participation, increasing cohesion

The leader

- Establishes direction

- Develops vision

- Communicates and inspires vision

- Energises others

- Innovates

- Figurehead, Spokesperson

- Looks outwards

- While "leader" can be a formal job title (e.g., Team Leader), true leadership is generally defined as a set of behaviors, actions, and skills rather than a position in an organization

Conclusion

- Managers manage, leaders lead

- Managers have a specific role within the organisational structure:
    - Replaceable
    - Trainable

- Leaders provide direction, may arise from anywhere:
    - Not easily replaceable
    - Not trainable

Reading

- **Essential:**
  - *Professional issues in information technology by Frank Bott*
    - Chapter 3: What is an Organisation?,
    - Chapter 4: Structure and Management

- **Recommended:**
  - *A Rulebook for Arguments by Anthony Weston,* Chapter 5: Arguments about Causes
  - *ACM Code of Ethics,* Principles 2.4 - 2.7