

# **ISNIE**

## **ENGINEERING SUMMER SCHOOL**



**ISNIE**

**“An introduction to Neutron Chopper Systems”**

**01 Intro & Welcome**

# COURSE TEAM

## Course material

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## Organisers

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# HOST ORGANISATION



JÜLICH CENTRE  
FOR NEUTRON  
SCIENCE



CENTRAL INSTITUTE OF  
ENGINEERING, ELECTRONICS  
AND ANALYTICS

# SAFETY INFORMATION

- Fire exits
- First aid points
- First aid(ers)
- Emergency numbers

# PRACTICAL INFORMATION

- Wifi network & password
- Where are the toilets?
- Where are the biscuits? And the coffee?
- Where is lunch ?



**ISNIE**

# **WELCOME TO THE COURSE**





# WELCOME TO ISNIE SUMMER SCHOOLS

- ISNIE engineering summer schools are one day programs of lectures and workshops aimed at providing the basics of engineering and operation one of technologies at the core of neutron instruments.
- Introductory courses are targeted at the younger and or less experienced members of the community with the intention of being as interactive and fun as informative .



# WHAT ARE WE DOING?

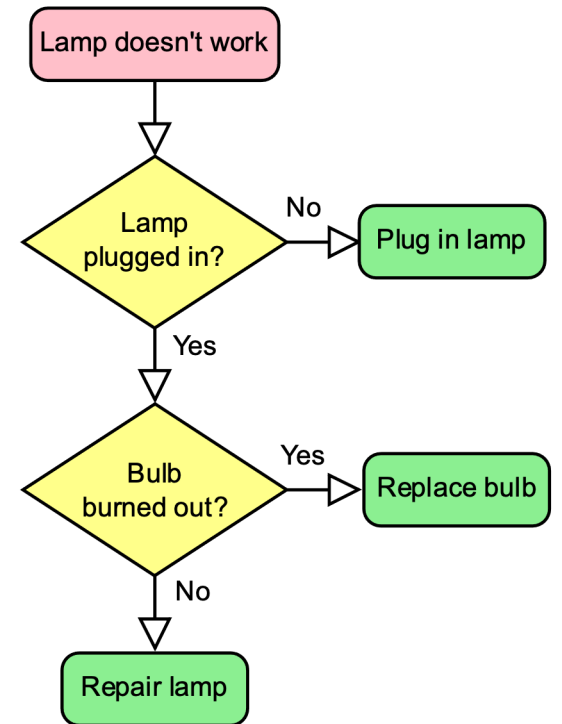
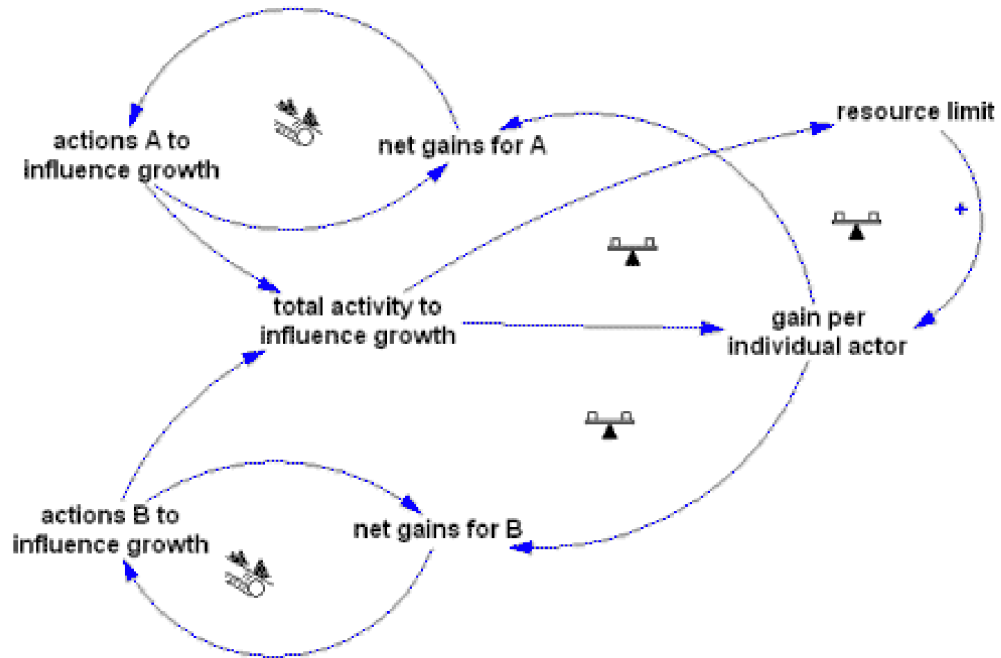
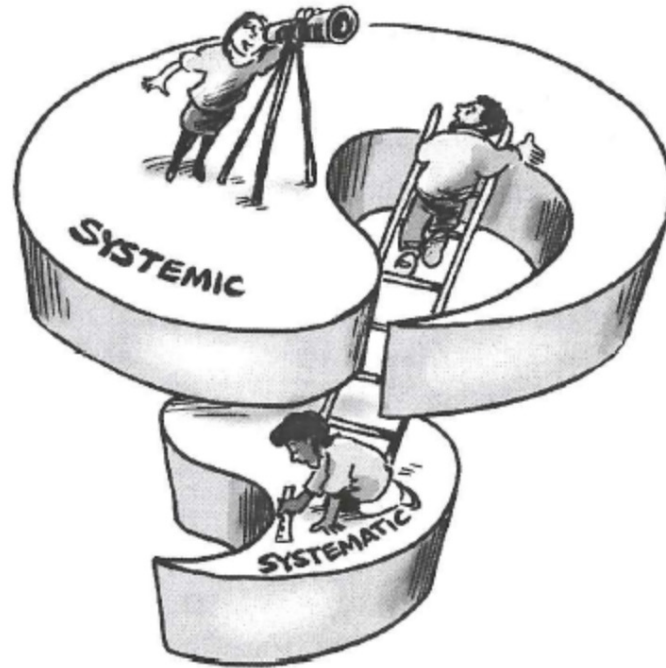
- Role within instrument design and operation
- To explore the key components, issues and interactions, within the technology and with the environment.
- Explore the principal system architypes and understand the tradeoffs in each.
- Identify the areas of expertise and competence required
- Informed where seek further information and assistance within the community



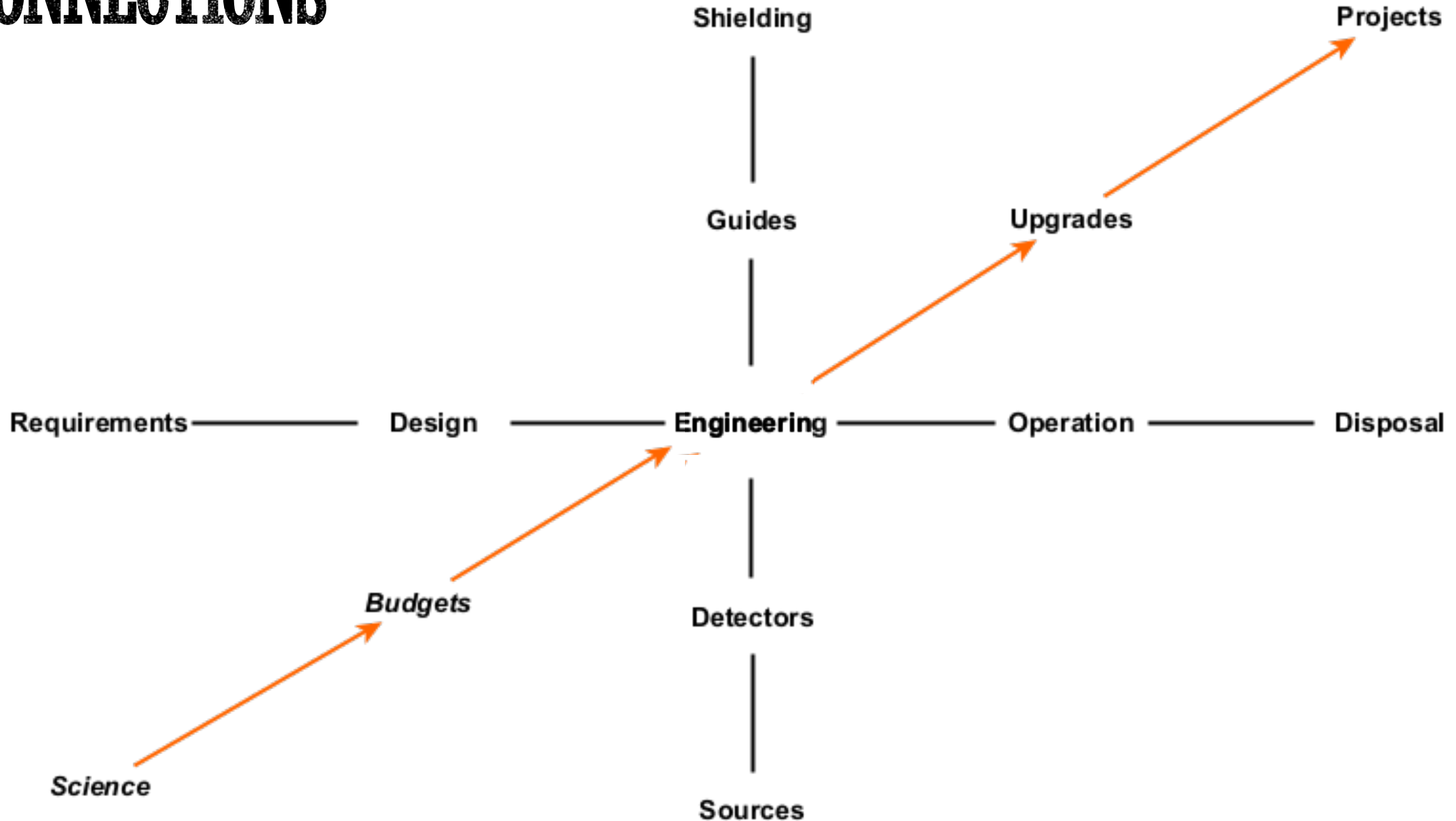
dubious dog



# APPROACHES

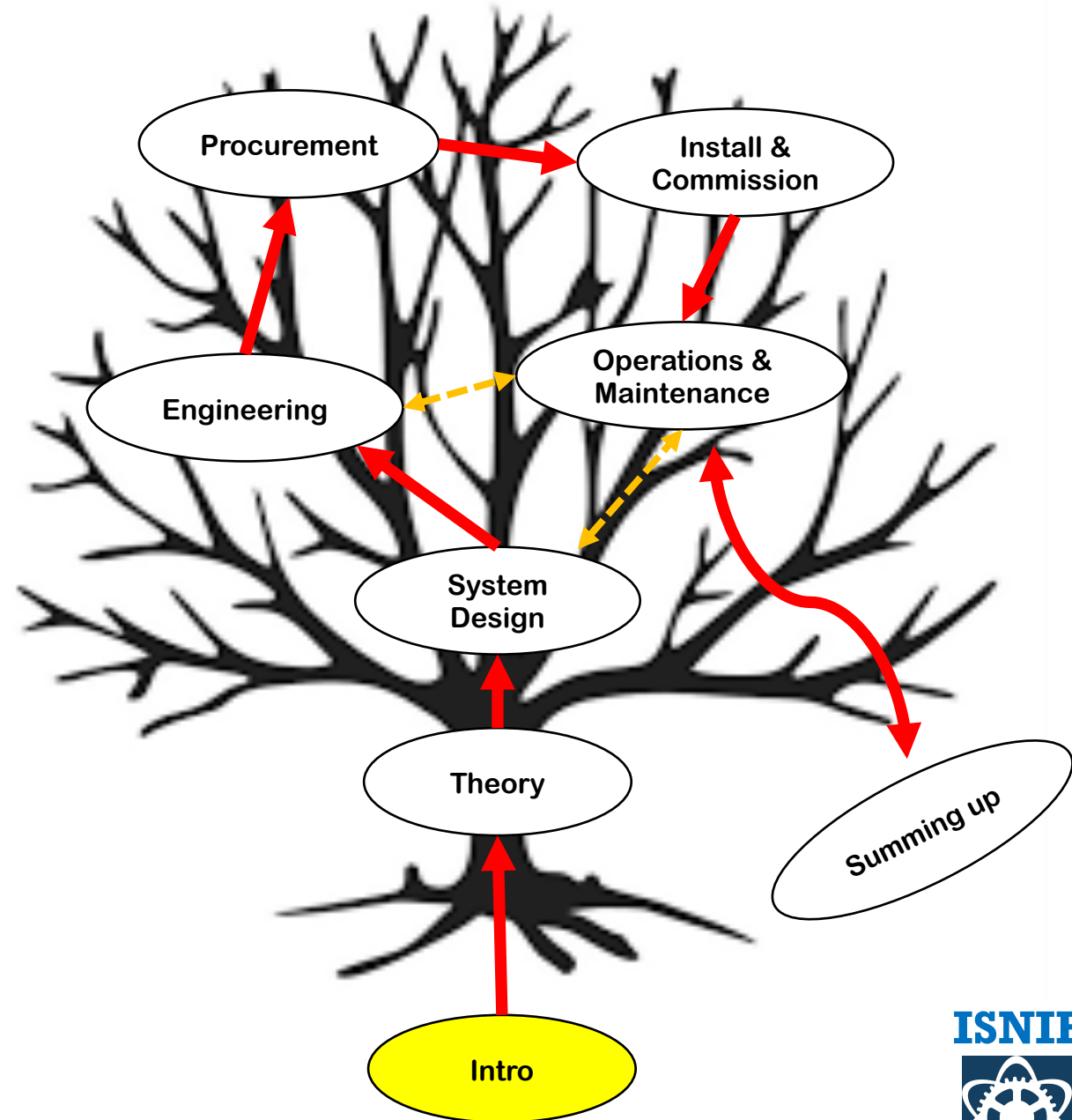


# CONNECTIONS

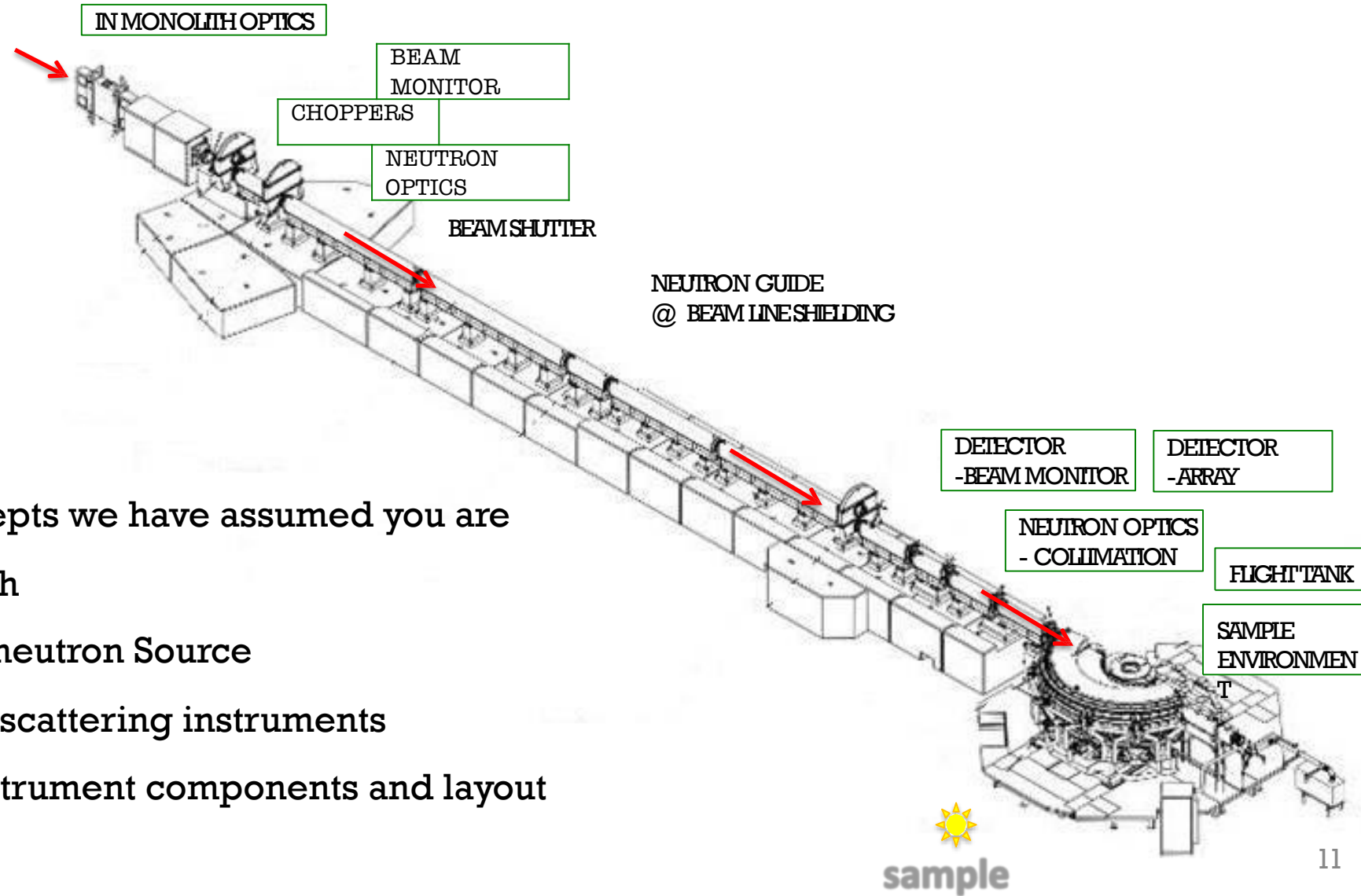


# TODAYS SCHEDULE

09:00 – Welcome & Course overview	15
09:15 – Theory	45
10:00 – Coffee break	15
10:15 – System design	45
11:00 – Engineering	45
12:00 – Lunch (Central Library)	75
13:15 – Visit to the chopper workshop	30
13:45 – Procurement	15
14:00 – Installation & commissioning	60
15:00 – Coffee break	15
15:15 – Operation & maintenance	60
16:15 – Summing up	30
16:45 – Close out	(15)
17:30 – Bus to Aachen	



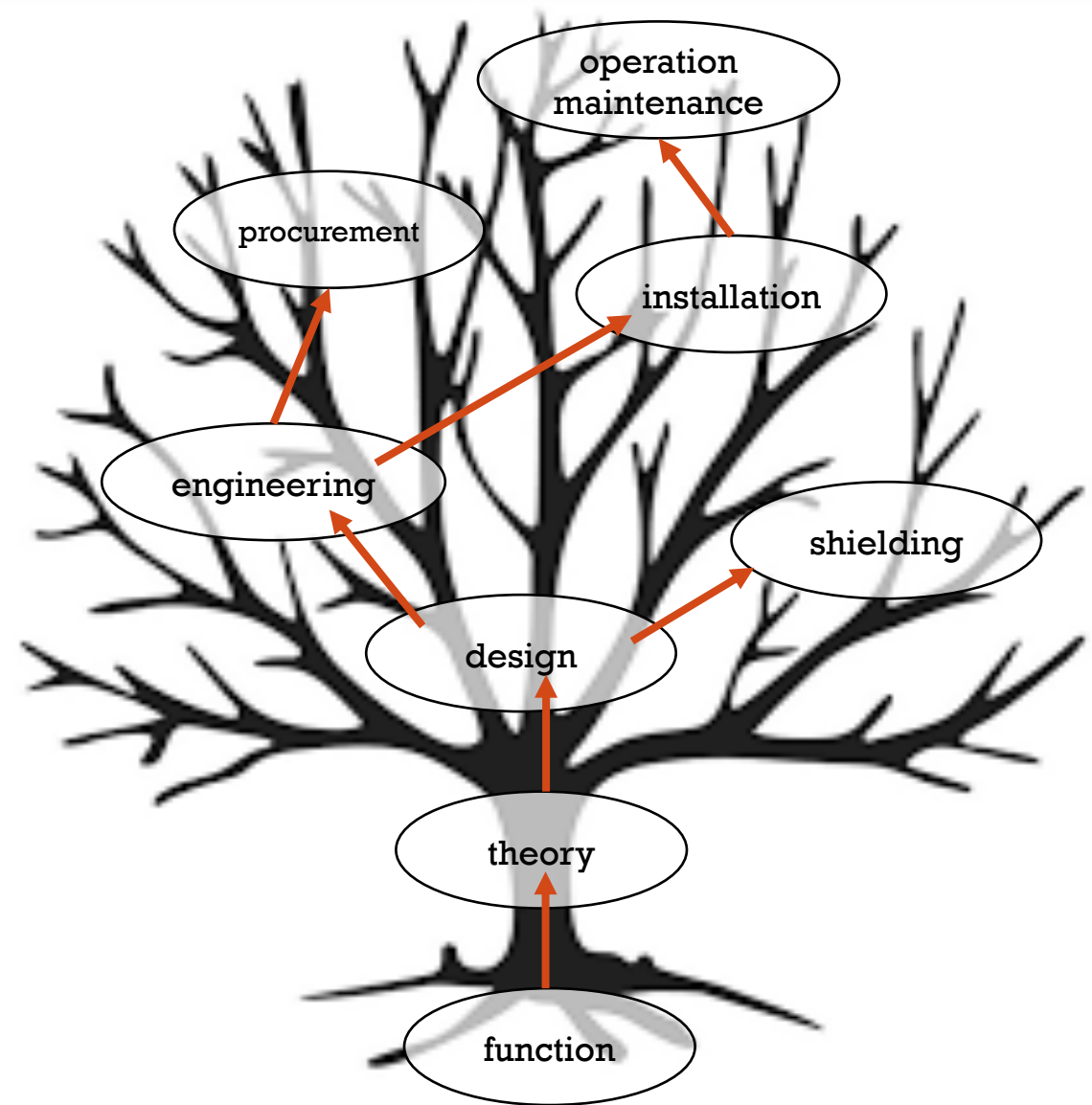
# ASSUMED KNOWLEDGE



Basic concepts we have assumed you are familiar with

- Type of neutron Source
- Neutron scattering instruments
- Basic instrument components and layout

# COURSE STRUCTURE







**ISNIE**

**SO . . .**

**DO PARTICIPATE**

**DO ASK QUESTIONS**

**AND DO HAVE FUN !**