

# VIENNA SCIENTIFIC CLUSTER



User meeting 1.7.2010



universität  
wien



# Agenda

- New regulation for project resource allocation
- VSC-1 upgrade
  - Addition of nodes
  - Extended fileservice
  - GPU nodes
- VSC-2
  - Call for bids
  - Technical specifications
- Miscellaneous

# VSC: distribution of resources

Share of core-h between the universities:

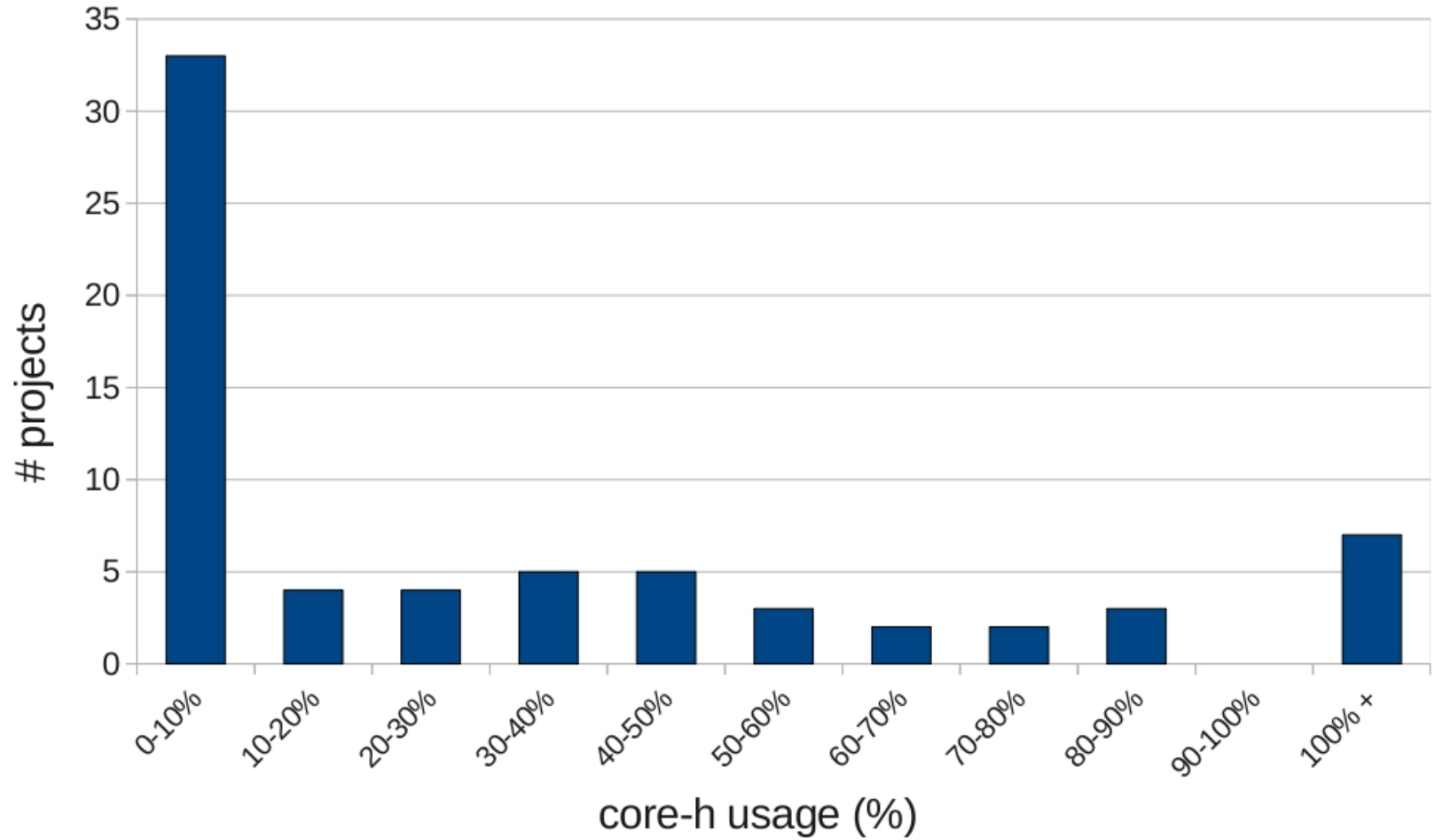
Uni Wien	TU-Wien+BOKU	free
40%	40%	20%

**Theoretically available core-h on the VSC per year: 30.554.880**

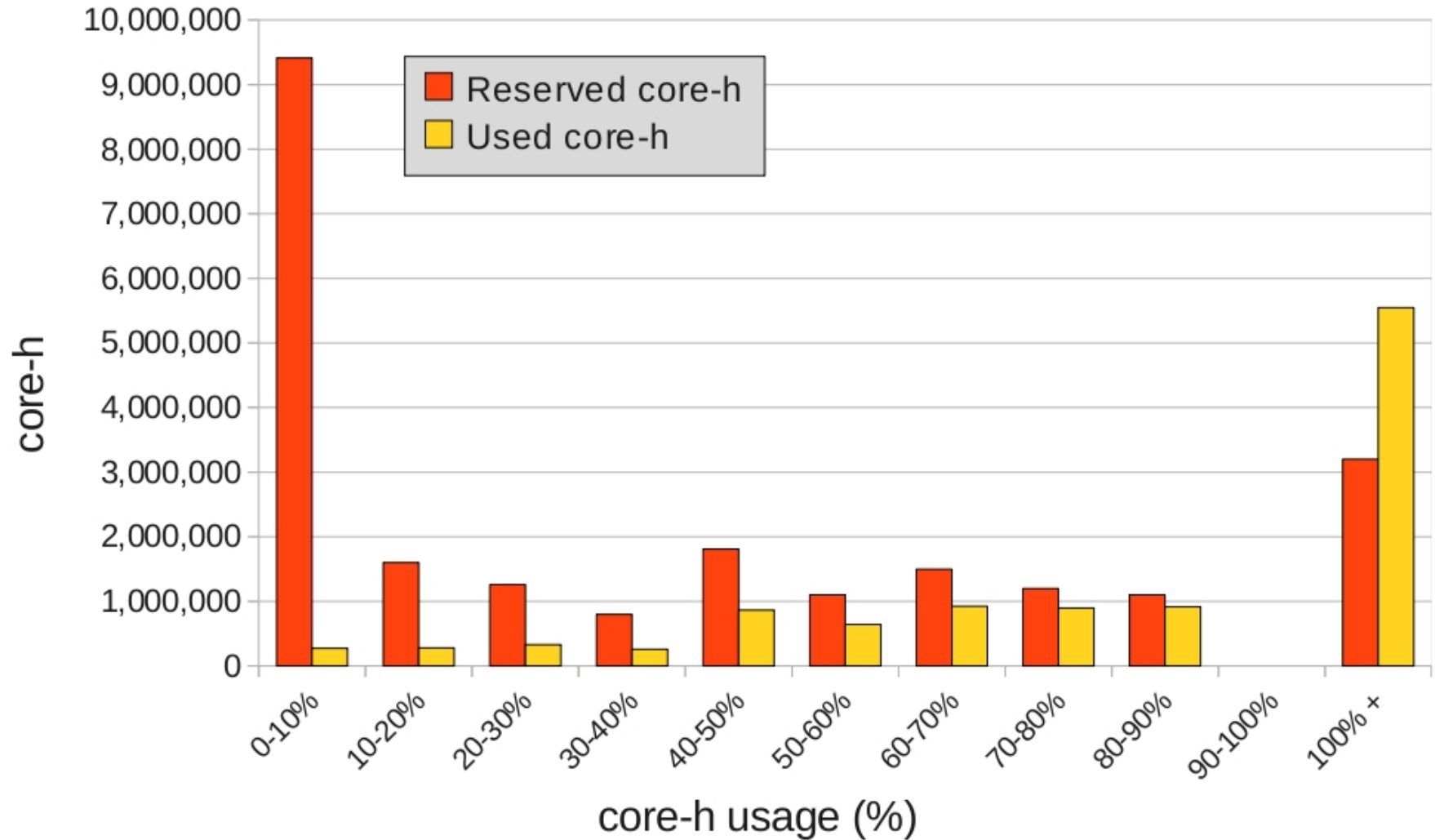
# Core-h reservations 2010

	UNI Wien	TU Wien+BOKU	sum
share	12.221.952	12.221.952	24.449.904
reserved	13.130.000	12.901.440	26.031.440
difference	-908.048	-679.488	-1.587.536

## Distribution of projects w.r.t. core-h usage



## Distribution of projects w.r.t. core-h usage



# project resources – new regulation

1. Contingent will be reduced by amount of unused core-h in quarterly periods.
2. Smaller initial contingent.

# project resources – new regulation

- Accounting in quarterly “project periods” (3 months)
- Minimum usage per quarter ( $U_{\min}$ )
  - $U_{\min} = K/4$
- If real usage is less than  $U_{\min}$ :
  - reduction of available core-h:
    - $K_{i+1} = K_i - (U_{\min} - U_{i,\text{real}})$ , if  $U_{\min} > U_{i,\text{real}}$

$K$  ... original core-h contingent

$K_i$  ... contingent after  $i$  quarters ( $i = 1, 2, 3, 4, \dots$ )

$U_{i,\text{real}}$  ... actually used core-h per quarter

$U_{\min}$  ... minimum usage per quarter



# Example 1

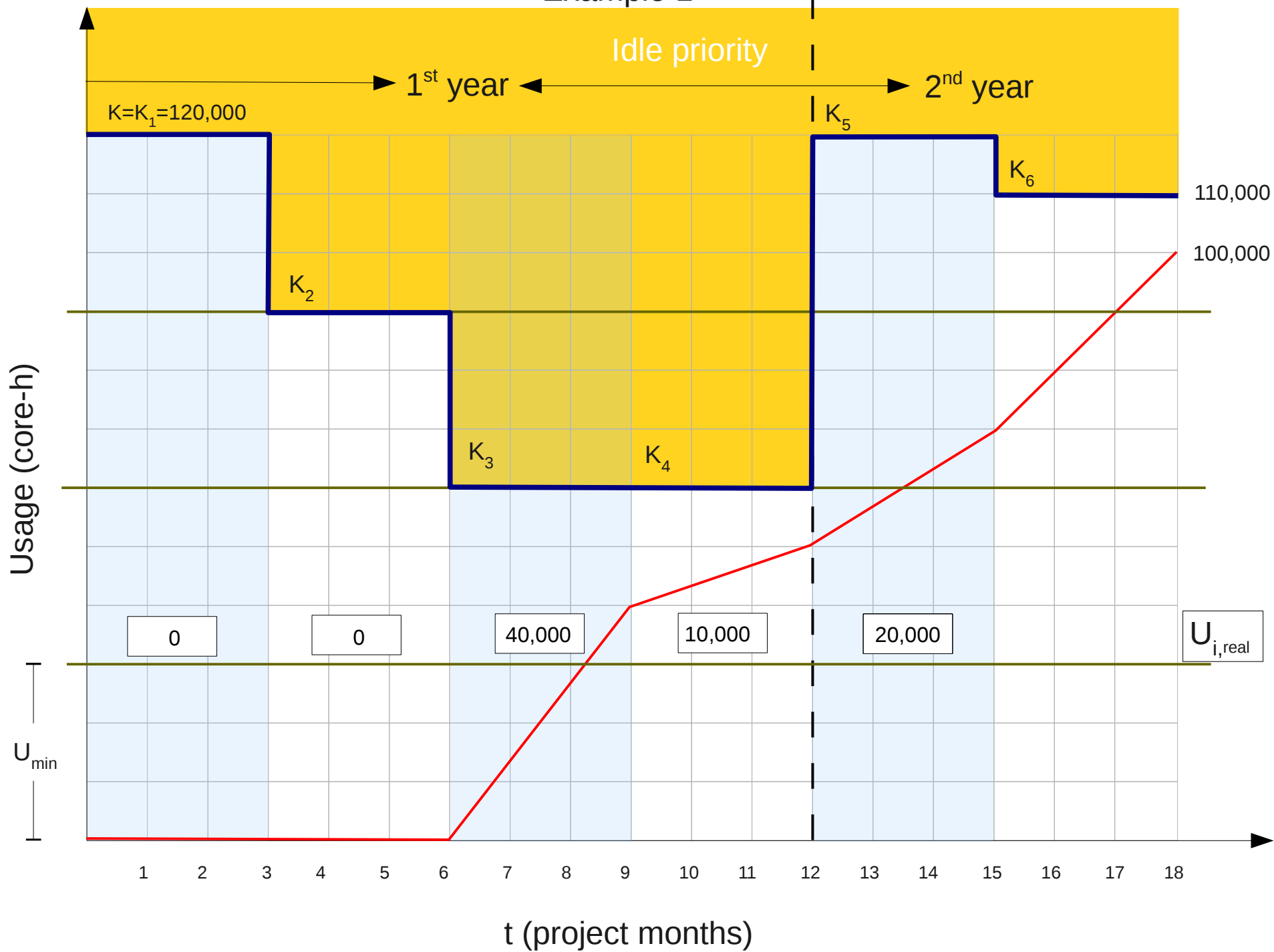
- $K = 120.000$  core-h
- $U_{\min} = 30.000$  core-h
- Usage in 1<sup>st</sup> quarter,  $U_{1,\text{real}} = 0$ 
  - Contingent reduced after 1<sup>st</sup> quarter:
    - $K_2 = 120.000 - 30.000 = 90.000$  core-h
- Usage in 2<sup>nd</sup> quarter,  $U_{2,\text{real}} = 0$ 
  - Contingent reduced after 2<sup>nd</sup> quarter:
    - $K_3 = 90.000 - 30.000 = 60.000$  core-h

# Example 1

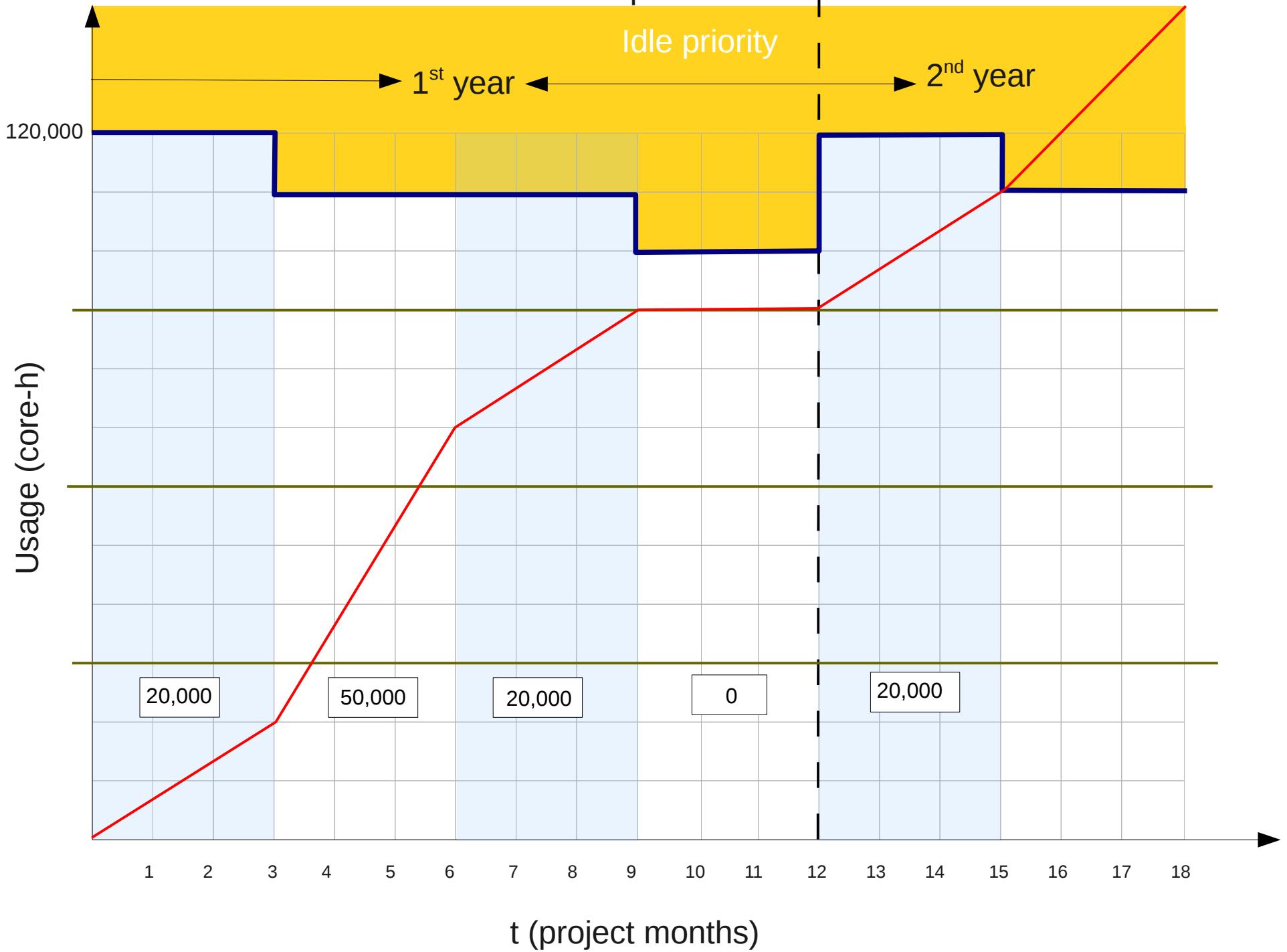
- Usage in 3<sup>rd</sup> quarter,  $U_{3,real} = 40.000$  core-h
  - No reduction of contingent
    - $K_4 = 60.000$  core-h
- Usage in 4<sup>th</sup> quarter,  $U_{4,real} = 10.000$  core-h
  - No reduction of contingent because project year is over.
  - Increase of contingent to original value.
  - C.f. 60.000 core-h are added and are available for the next 6 months.

# Examples

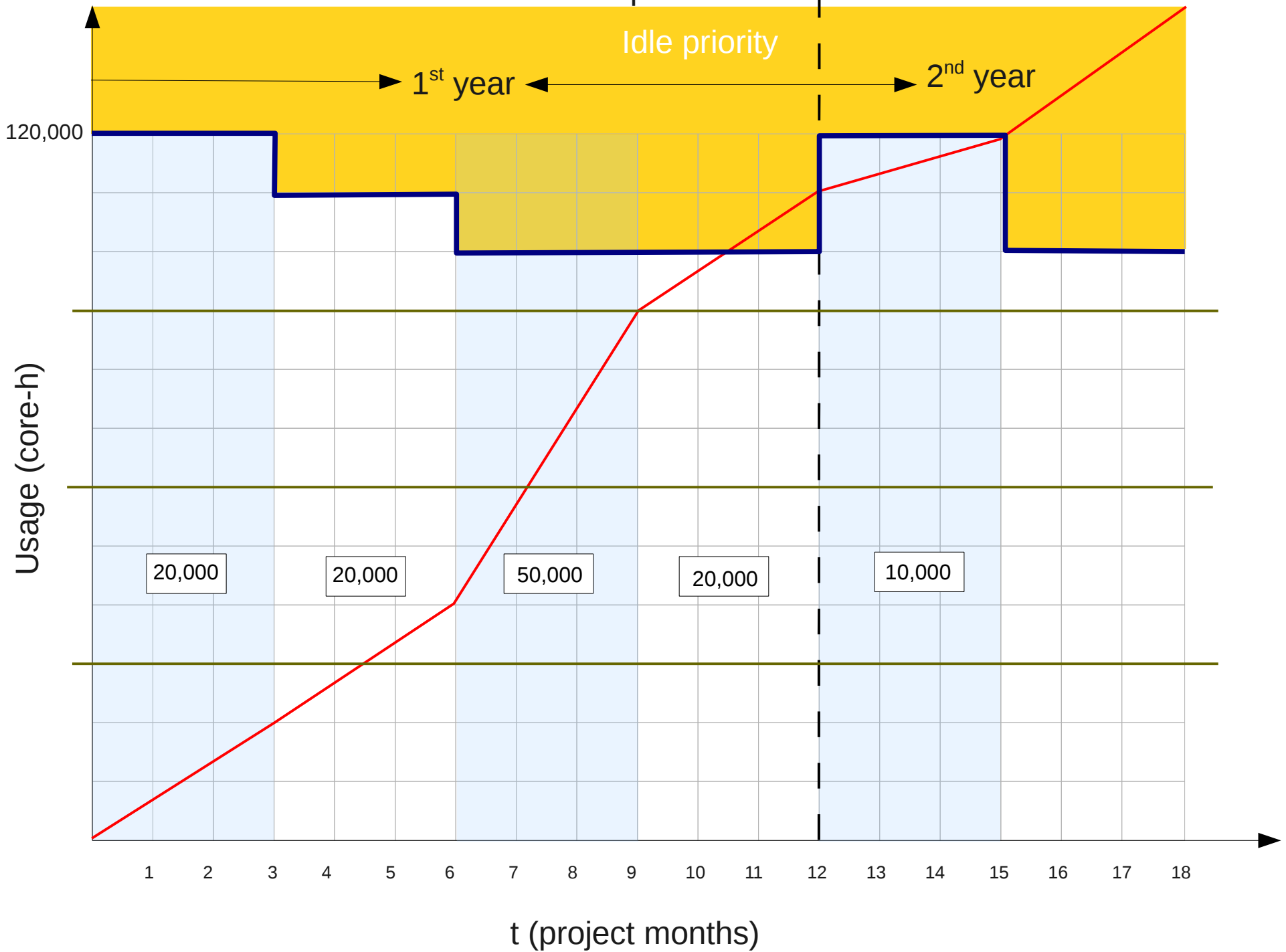
# Example 1



# Example 2



### Example 3



# Example 4

