



SCOTTISH EXECUTIVE



Conveyance Estimation System (CES) Launch

Roll-out of CES and custodianship of the source code

Dr Rahman Khatibi

10 June 2004

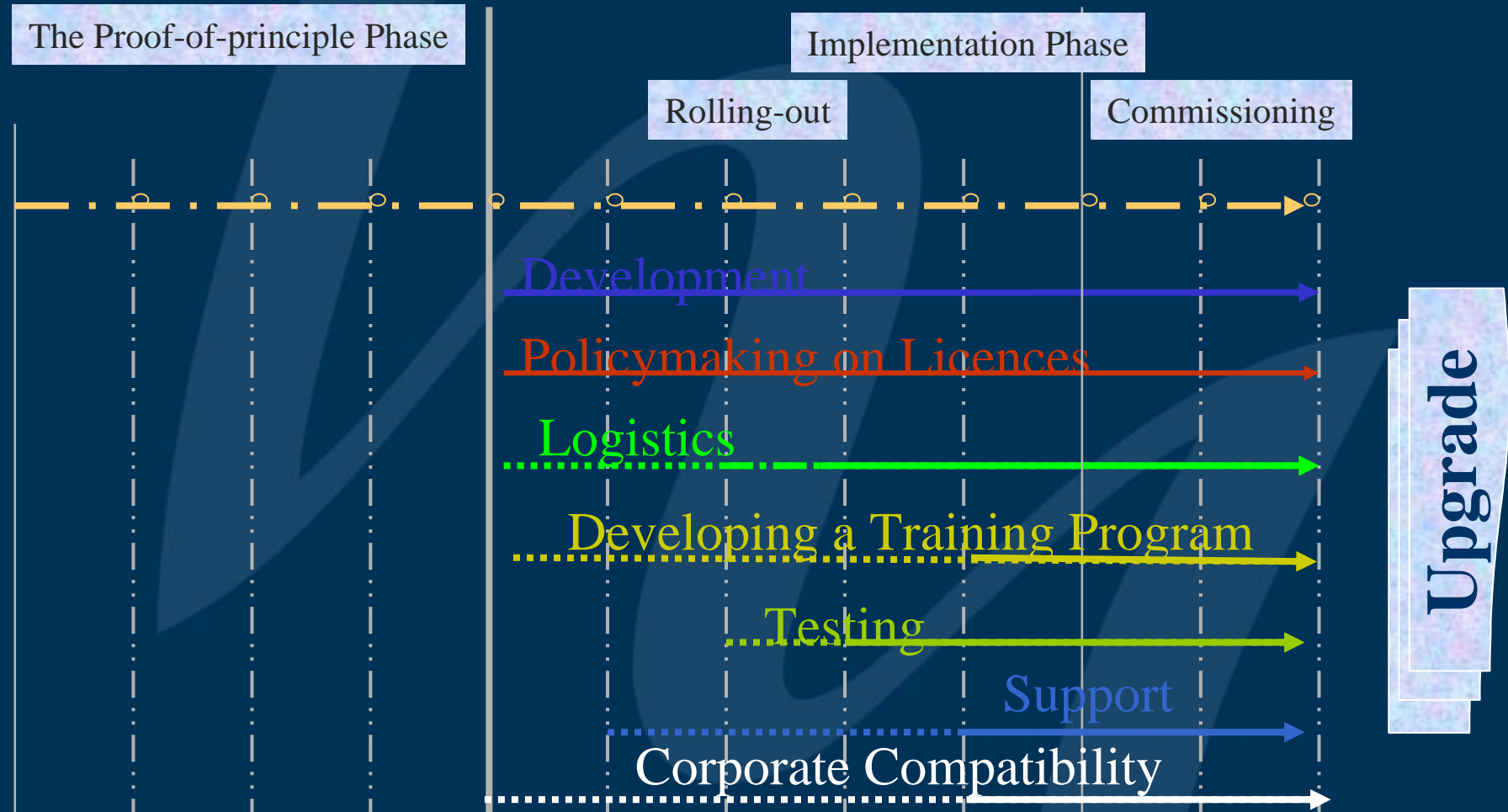


SUMMARY

- **Lifecycle Management of IT/IS Products**
- **Product Analysis**
- **Stakeholder Analysis**
- **The Impact of the CES and its Context**
- **The Special Issue of Open Source**
- **Towards Policymaking on the Rollout**
- **Conclusion**

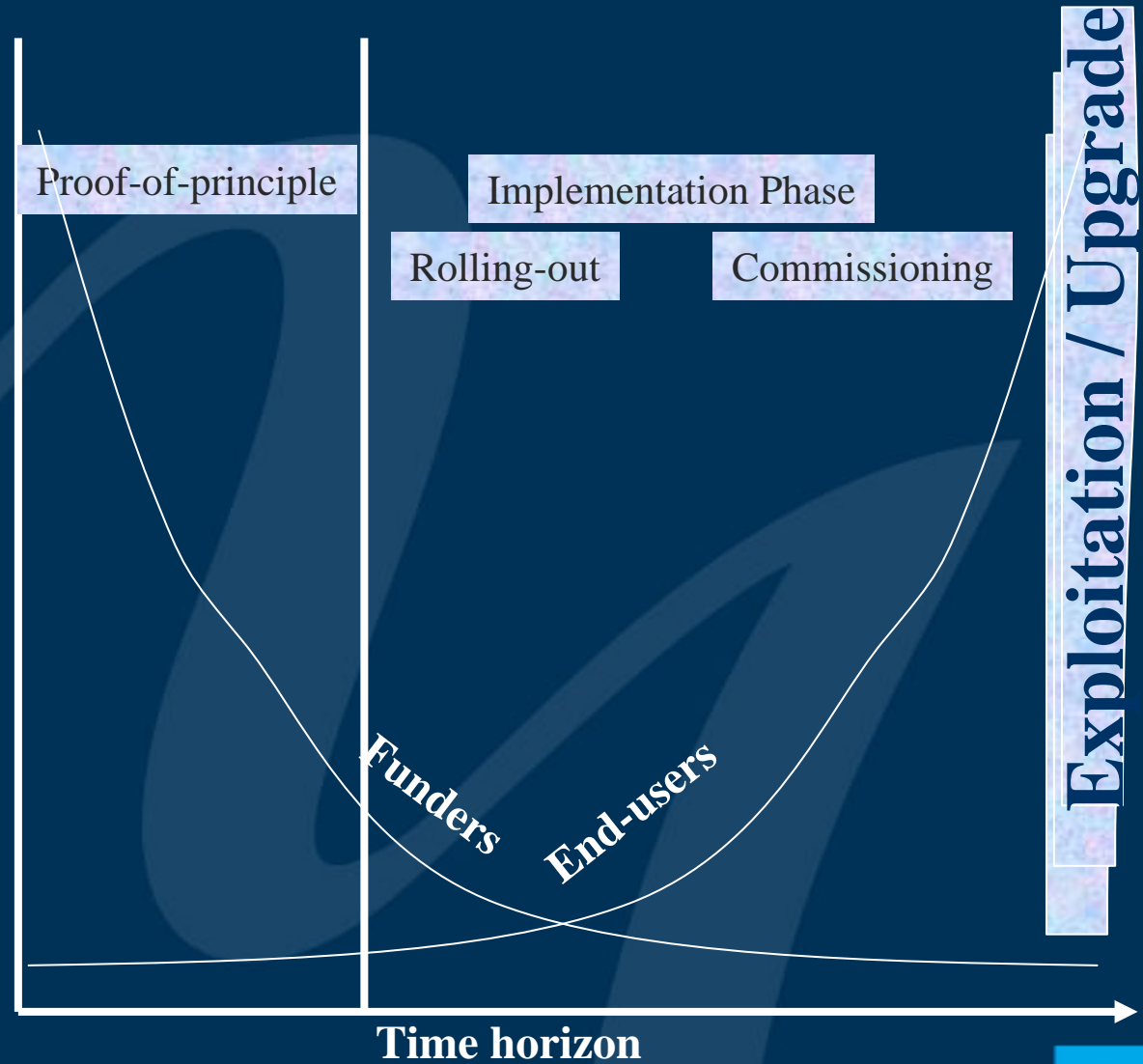


Managing Lifecycle of IT/IS products



Stakeholder analysis

- Result users
- Modellers
- Academics
- Software House
- Funders



ENVIRONMENT
AGENCY

Conveyance Estimation System



Stakeholder needs

- Practitioners using the CES results - training to understand results and their inherent uncertainties
- Modellers - training, support and licences
- Academics - training, support, source code, upgrade
- Software Developer - source code, uptake
- Funders - uptake, upgrade



Product Analysis

- **Stand-alone CES**
 - Roughness advisor
 - Conveyance generator
 - Uncertainty estimator
 - Backwater calculation
- **CES implemented as a 1-D modelling package in iSIS (or other commercial models)**
- **CES implemented in bespoke modelling systems**
- **Supplying Conveyance Estimator algorithms on Open-source basis**



The Impact of the CES

- A new culture is emerging on best practice in conveyance estimation
- Relevant to this culture are: software licences, training, support, upgrading the software, sharing experience, improving practice
- The new culture reinforces “preventing the reinvention of the wheel” - open Source
- I flag the need for a policy to cover these issues



CES and similar Initiatives

- **MDSF, RASP, PAMS, AES**
- **EPSRC Consortium on Flood Risk Management**
- **One common thread is opening up source codes**
- **Not to forget HarmonIT and NFFS, ARION**
- **All of these put an emphasis on opening up**



**ENVIRONMENT
AGENCY**

Conveyance Estimation System



Open Source - 1

- **‘Open source’ is defined as the software source code freely shared and improved**
- **Only viable through institutional Arrangement referred to as Free Software Foundations - the analogy of peer-reviewed journal papers**



Open Source - 2

- It encourages widespread interoperability and rapid development
- It gives a new meaning to competitions by preventing the reinvention of the wheel - no more cold starts
- Interconnectivity among software modules
- Who pays? a viable enterprise for upgrading
- It is not the full solution



Towards Policymaking

We looked at:

- **Diversified new applications: CES/AES, RASP, PAMS**
- **Interconnectivity of these new applications**
- **Diversified stakeholders**
- **Lifecycle management with a focus on upgrade**
- **Gaps and the need to forming FSF**
- **So a policy is needed to bring these under its umbrella**



**ENVIRONMENT
AGENCY**

Conveyance Estimation System



Strategy

- Everyone should play their role
- The Agency is formulating its modelling strategy for flood risk management
- The Whole System Modelling Theme of the EPSRC Consortium on FRM can take up the issue of Free Software Foundation



ENVIRONMENT
AGENCY

Conveyance Estimation System



Conclusion

- The CES is moving from proof-of-concept to rollout
- Elements have emerged to form policies/strategies at the rollout stage
- Working in partnership in an evolving background
- A repertoire of open-source based software products have emerged flagging the need for FS Foundations
- FSF solves the problem of public organisations in contributing towards developing best practice



ENVIRONMENT
AGENCY

Conveyance Estimation System

