## NORWAY Full Cost Model

The board of The Norwegian Association of Higher Education Institutions (UHR, - now Universities Norway) approved the TDI methodology in the autumn of 2012, with a recommendation that Norwegian universities and university colleges implement the methodology as their common full costing approach starting from 2014. TDI stands for "Time spent by academic staff is the primary driver for both **D**irect and Indirect costs".

Since then, the TDI-model is implemented by almost all higher education institutions in Norway for calculating the total costs when receiving external funding for research. Starting out a as voluntarily practice in 2012, the standard letters from the Ministry to the public institutions awarding the annual basic funding, the Ministry expect that all institutions is using the TDI model when they receive external research funding.

University costs are for the purpose of the costing methodology divided in two groups – costs related to salaries (including supplies and petty office equipment) and costs related to support activities.

The most significant shift in applying the TDI-model is that some of the costs related to support activities traditionally regarded as indirect costs are considered direct costs:

- a) Direct costs: Investment in and running costs of large infrastructure, instruments, laboratories, including buildings and cost for technical staff.
- b) Indirect costs: Costs connected with horizontal services (libraries, IT service, administrative and financial management, human resources, training, legal advice, documentation, etc.).



The term research infrastructure resources (RIR)<sup>1</sup> is closely linked to the understanding of how cost vary between academic disciplines. In consequence the RIR will vary by discipline. To categorize research infrastructure as direct costs leads to more accurate resource allocation at the project level, as well as ensures sustainable funding, especially with regard to future investments in scientific equipment and infrastructure.

## Figure 1. Norwegian model of full costing

Externally funded research projects that require the use of RIR have to cover the cost of these services according to their use of them. RIR costs in project accounts are considered direct costs.

<sup>&</sup>lt;sup>1</sup> Additional information on the RIR model available at:

http://www.uhr.no/documents/a norwegian research infrastructure resource model 270214.pdf.

These models may vary between universities and disciplines, depending on characteristics within the disciplines and between universities. As a minimum, the models for establishing RIR costs has to provide an overview of equipment units (work places) as well as the available working hours. By default, the number of working hours per year is set at 1628 hours.

The total RIR costs are divided by the product of equipment units and hours. This provides an hourly rate. It is proposed to establish a single rate per institution, but several rates per institution may exceptionally be accepted if it is warranted.

Indirect costs are other support activities (non-RIR). These are central university services (library, IT, administration) and local support within the research unit (office, consumables, management and more). Some of the costs for other support activities are generic and relate to office, IT/telephone and human resources/financial management. These generic costs are applied with the same rate/amount to all relevant personnel. Remaining indirect costs for support activities are related to the core activities of research and education, and calculated on the basis of use.

Time allocation for personnel temporarily hired for project work is based on the employment contract. For existing scientific personnel taking part in project activities, time allocation is based on a) either general or individual agreements on time spent on core activities as well as b) agreements on time spent on specified projects with external funding.

The model assumes that an academic employee with an obligation to both research and teaching (e.g. the Norwegian University norm is 50/50-split between research and teaching) is fulfilling her/his obligations. The need for extra specification on time spent is only a matter when he/she works on externally financed projects. Time spent on projects will then be specified as share of annual work hours.

A full time equivalent (FTE) is 1628 working hours after weekends, vacation, holidays and average sick leave rate are subtracted. These 1628 hours are spent on administration (6 %, i.e. 98 hours), while the remaining 1530 hours are split between research and education according to local guidelines (at group or individual level).

The specification of work as a share of FTE provide the number of hours. No time sheets are necessary. The agreement on time spent by each individual on each project provides the basis for the accounting of labor costs on the project. Necessary documentation, signed by project management, is provided on a monthly basis. This documentation will also include the handling of exceptions from the agreement.

It is an essential task for every university and university college using the TDI model to document the data used in a transparent and revisable way.



Figure 2. Overview of the TDI model

It has been imperative in developing the TDI model to provide the information needed to the full costing model without more administrative efforts than absolutely necessary. One of the important benefits in applying the TDI model is that it levels out the differences between the personnel costs within the "hard sciences" and the "soft sciences". A researcher in physics and history costs the same. It is the laboratory services that are often needed by the physicist that are additional.

Another benefit is that the model also allows for some simplifications regarding how costs are calculated freeing of administrative resources that otherwise would have been used for more detailed calculations and documentation, e.g. us

Involvement of the Norwegian Research Council (RCN) has been crucial in the whole process pf preparation of the TDI model. The Research Council took part in a working group in 2011 and 2012 where the basic principles for the model were laid down. These principles were later accepted parallelly by the General Assembly of the UHR and by the Norwegian Research Council, which later adapted them into its own procedure to apply for funding and implement projects.

The principles where followed by two expert committees, first regarding the details of the full costing in general, and then proposing how to solve the challenges of including the costs of infrastructure, - now known as the RIR model.

The government also supported the implementation of the model, by stating in funding letters addressed to the institutions that they would have 'expected' the TDI and RIR models to be implemented.

The Norwegian Research Council annually receives more than 5000 applications and distributes about 1.5 billion euros in grants for research and innovation (about 30% of national research funding) to domestic and foreign beneficiaries. RCN major funding requirements are developed on acceptance of beneficiaries cost accounting practices. When applying to RCN, universities and university colleges

(including those based in other countries) can choose between two options: 1) full costing methodology and 2) the reimbursement of actual salary costs plus 25% indirect costs. Research institutions calculate personnel costs and indirect costs based on hourly rates fixed for three separate groups of R&D staff differentiated by level of remuneration.

Once a year, institutions inform RCN about their hourly rates to be applied in grant applications reflecting actual costs based on efficient operations. Use of notified hourly rate is mandatory. Personnel and indirect costs of companies involved in projects is calculated as hourly rate based on nominal annual salary. Average rates may be used for groups of R&D personnel. Project funding and project costs must appear in the Project Owners' formal accounts.