

COLLABORATIVE WORK AT ERICSSON

Life Cycle Assessment of ICT enablement potential

STAKEHOLDERS

Ericsson and its employees

PUBLISHED

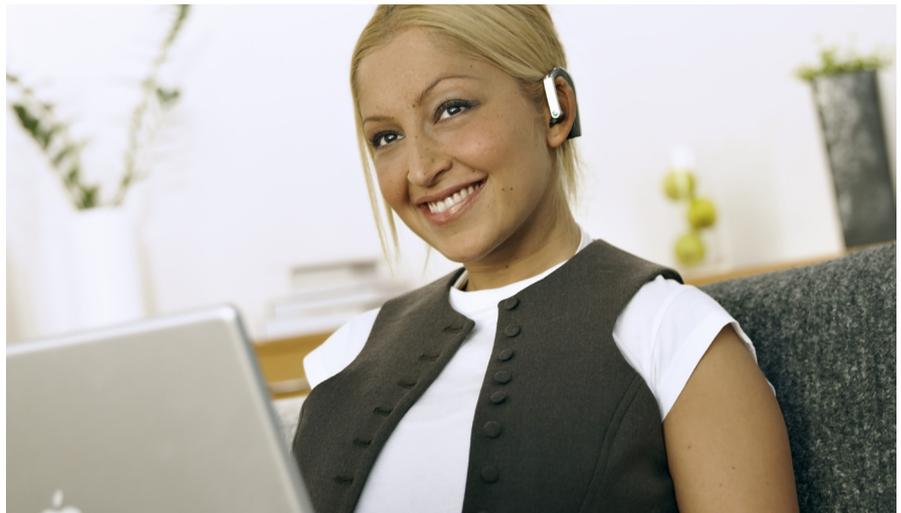
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ENABLING EFFECT

Travel substitution and dematerialization (substance elimination)

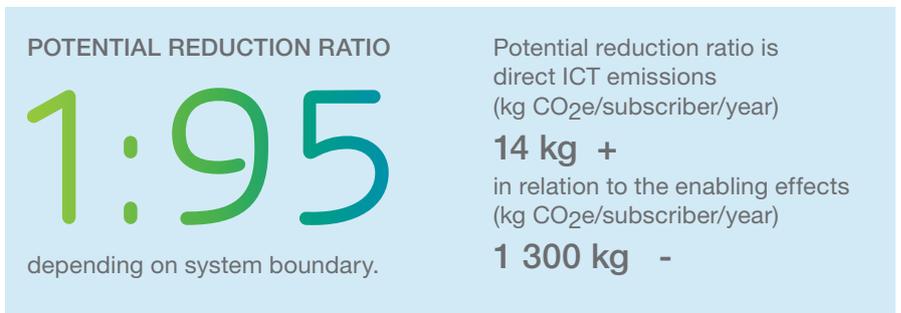
AREA

Collaborative work



SOLUTION

Working practices are evolving from the traditional proximity or geographical collocation paradigm to a virtual collocation paradigm where professionals collaborate, regardless of their geographical location. In this context, e-professionals use a collaborative working environment that makes it possible to share information and exchange views in order to reach a common understanding. It is transformative since it reduces the need for travel, paper and office space.



Ericsson Business Communication Suite (BCS) is a collection of network-based operator applications to be used by telecom service providers serving the corporate segment.

the enabling effects of solutions implemented by our industry for the intended audience: policy makers and the general public.

For more information about Ericsson's work with enabling ICT solutions, please visit: www.ericsson.com/sustainability

It includes the features BCS Voice, BCS Collaboration and BCS Mobility. These features can be implemented to reduce business travel, commuting and virtual offices (Figure 1).



OBJECTIVE

The purpose of this study is to understand the potential of collaborative work if it is widely adopted by Ericsson globally using the Business Communication Suite. The results demonstrate

Figure 1: Collaborative work use cases included in this assessment.

	Primary	Secondary
+ Direct ICT emissions	Emissions from ICT equipment required for Business Communication Suite <ul style="list-style-type: none"> • Manufacturing servers • Using servers • Additional use and wear on laptops and mobile phones 	
- Enabling effects	<ul style="list-style-type: none"> • Reduced commuting (car, public transport) • Reduced business trips (air, train and taxi) • Reduced paper consumption 	<ul style="list-style-type: none"> • Reduced office use • Reduced infrastructure (office buildings, vehicles, roads, etc.)

Figure 2: Potential effects of implementing collaborative work
(Source: Evaluating the carbon-reducing impacts of ICT, GeSI 2010)

SCOPE

The direct ICT emissions represent the additional equipment required for the Business Communication Suite solution, including data centers (assuming round-the-clock operation) and increased laptop and smart phone use (additional 2 hours for phones, 1 hour for laptops a day). The increased use of existing networks and MS Exchange is marginal and is therefore not included. The Business As Usual (BAU) system encompassed commuting and business travel, and office and paper use by Ericsson employees globally.

The primary enabling effects (immediate reductions) include reduced employee commuting and business travel, and lower office and paper use. Employee commuting is mainly done by private car or public transport and business travel is primarily by air and train, based on Swedish commuting patterns. The decrease in the non-motorized transportation infrastructure (bicycles and bike lanes) is assumed to have a minor impact and has not been included in the reduction in commuting. Business travel includes trips made by car and taxi trips to and from the airport and train station. Reduced needs for private and public transportation

and reduced paper consumption per subscriber occur either immediately or within a short period of time after telecommuting is adopted, and are included as primary enabling effects. Reductions in the need for travel by public transport, air and train are included as primary effects since the reduction is calculated per subscriber and not by system.

Reduced building use and construction are a result of reduced demand for desks, heating, lighting and other energy-generating equipment in the workplace, occurring over a longer time span. Reduced vehicle use and infrastructure requirements occur over an even longer time span, resulting from a decrease in travel. For example, reduced train and air travel by a single company would not have an immediate impact, but on a sufficiently large scale, more widespread use of remote meetings could have a very real effect. These effects are included as secondary enabling ones. The direct ICT emissions and enabling effects include manufacturing, transport, operation and disposal of equipment. Figure 2 summarizes all potential effects that were identified.

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RESULT

The result in Figure 3 is based on a mix of secondary and modeled data. It is assumed that collaborative work implemented at Ericsson will enable:

- A 20% reduction in business travel
- A 20% reduction in commuting (one day/week)
- A 20% reduction in office space (excl. energy for equipment used, etc.)
- A 20% reduction in paper use

Ericsson environmental data for 2009 and other secondary data were used to determine the average business as usual travel and resource consumption.

Generally speaking, collaborative work has the potential to reduce CO₂e emissions by up to 1,300 kg CO₂e/subscriber/year while only adding 14 kg of CO₂e/subscriber/year for the service system. The potential reduction ratio over a 20-year period could be 1:95, depending on whether the infrastructure is included and, if so, to what extent.

The absolute reduction is about 1,300 kg CO₂/subscriber/year, or 100 ktonnes CO₂/year if applied to all Ericsson employees.

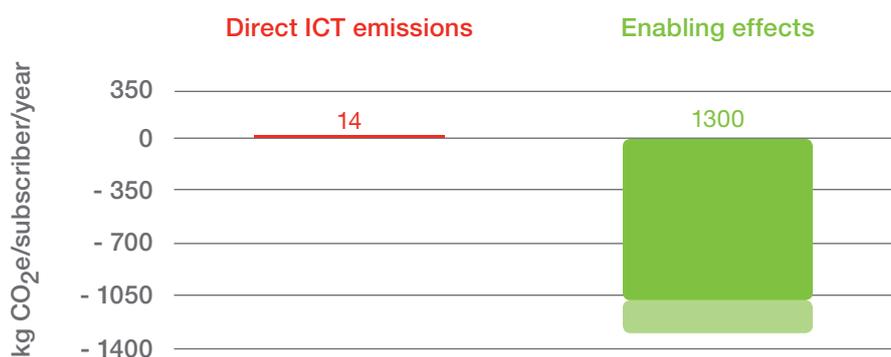


Figure 3: The impact of collaborative work

■ Primary ■ Secondary